



**Centers for Medicare & Medicaid Services**



**Draft CMS Implementation Guide for  
Quality Reporting Document Architecture  
Category I and Category III  
Eligible Professional Programs  
Supplementary Implementation Guide for 2017**

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**DRAFT**  
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## Disclaimer

Although there are references to various quality reporting programs administered by the Centers for Medicare and Medicaid Services (CMS) in this Draft 2017 Centers for Medicare and Medicaid Services (CMS) Implementation Guide for Quality Reporting Document Architecture (QRDA) Category I and Category III for Eligible Professionals, please anticipate a second release of the Draft 2017 CMS Implementation Guide for QRDA Category I and Category III for Eligible Professionals based on rule making process and will be posted for a subsequent public comment period. In the future draft version we will post for public comment, CMS plans to remove references to the Physician Quality Reporting System (PQRS) and the EHR Incentive Program.

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This draft contains content from the *HL7 Implementation Guide for Clinical Document Architecture (CDA) Release 2: Quality Reporting Document Architecture (QRDA) Category I*, *Release 1, Draft Standard for Trial Use Release 3.1* (published April, 2016), and the *HL7 Implementation Guide for Clinical Document Architecture (CDA) Release 2: Quality Reporting Document Architecture Category III (QRDA-III)*, *Draft Standard for Trial Use Release 1.1* (published March 17, 2016), both copyright ©Health Level Seven (HL7) International® (<http://www.hl7.org>). HL7 and Health Level Seven are registered trademarks of Health Level Seven International. Reg. U.S. Pat & TM Off. Additional information regarding the use of HL7 materials is available at <http://www.hl7.org/legal/ippolicy.cfm>.

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# Combined QRDA Guide Overview

## 1 Introduction

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### 1.1 Overview

The Health Level Seven International (HL7) Quality Reporting Document Architecture (QRDA) defines constraints on the HL7 Clinical Document Architecture Release 2 (CDA R2). QRDA is a standard document format for the exchange of electronic clinical quality measure (eCQM) data. QRDA reports contain data extracted from electronic health records (EHRs) and other information technology systems. The reports are used for the exchange of eCQM data between systems for quality measurement and reporting programs.

This combined QRDA guide contains the Centers for Medicare & Medicaid Services (CMS) supplemental implementation guides to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture Category I, Release 1, Draft Standard for Trial Use (DSTU) Release 3.1, US Realm, 2016*<sup>1</sup> and the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, DSTU Release 1.1, March 2016* for the 2017 reporting year. These two HL7 standards are referred to as “QRDA-I” and “QRDA-III”, respectively.

### 1.2 Organization of the Guide

This preliminary portion contains introductory material that pertains to all three CMS QRDA standards.

- Chapter 1: Introduction
- Chapter 2: Conformance Conventions Used in This Guide — describes the formal representation of templates and additional information necessary to understand and correctly implement the content found in this guide

PART A: QRDA-I DSTU R3.1 Supplementary Implementation Guide for Eligible Professional Programs

- Chapter 3: Overview
- Chapter 4: QRDA Category I Requirements — includes reporting and eCQM specifications requirements and information on succession management, value sets, and time zones
- Chapter 5: QRDA Category I Validation — contains the formal definitions for the QRDA Category I Report:
  - Document-level template that defines the document type and header constraints specific to CMS reporting
  - Section-level templates that define measure reporting, reporting parameters, and patient data

PART B — QRDA-III DSTU R1.1 Supplementary Implementation Guide for Eligible Professional Programs

- Chapter 6: Overview

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<sup>1</sup> [http://www.hl7.org/implement/standards/product\\_brief.cfm?product\\_id=35](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=35).

- Chapter 7: QRDA Category III Submission Rules — includes guidelines for submissions under the Comprehensive Primary Care Plus (CPC+) program, the Electronic Health Record (EHR) Incentive Program (Meaningful Use), and the Physician Quality Reporting System (PQRS) Program
- Chapter 8: QRDA Category III Validation — contains the formal definitions for the QRDA Category III Report for the CMS Eligible Professional (EP) programs:
  - Document-level template that defines the document type and header constraints specific to CMS reporting
  - Section-level templates that define measure reporting and reporting parameters
  - Entry-level templates that define entry templates

## APPENDIX

- Chapters 9-17 provide references and resources, including a list of all changes made to the QRDA Category I base standard to produce the Supplementary Implementation Guide in Part A, and a list of all changes made to the QRDA Category III base standard to produce the Supplementary Implementation Guide in Part B.

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## 2 Conformance Conventions Used in This Guide

### 2.1 Conformance Verbs (Keywords)

The keywords **SHALL**, **SHOULD**, **MAY**, **NEED NOT**, **SHOULD NOT**, and **SHALL NOT** in this guide are to be interpreted as follows:

- **SHALL**: an absolute requirement for the particular element. Where a **SHALL** constraint is applied to an Extensible Markup Language (XML) element, that element must be present in an instance, but may have an exceptional value (i.e., may have a `nullFlavor`), unless explicitly precluded. Where a **SHALL** constraint is applied to an XML attribute, that attribute must be present, and must contain a conformant value.
- **SHALL NOT**: an absolute prohibition against inclusion.
- **SHOULD/SHOULD NOT**: best practice or recommendation. There may be valid reasons to ignore an item, but the full implications must be understood and carefully weighed before choosing a different course.
- **MAY/NEED NOT**: truly optional; can be included or omitted as the author decides with no implications.

### 2.2 Cardinality

The cardinality indicator (0..1, 1..1, 1..\*, etc.) specifies the allowable occurrences within a document instance. The cardinality indicators are interpreted with the following format "m...n" where m represents the least and n the most:

- 0..1 zero or one
- 1..1 exactly one
- 1..\* at least one
- 0..\* zero or more
- 1..n at least one and not more than n

When a constraint has subordinate clauses, the scope of the cardinality of the parent constraint must be clear. In the following figure, the constraint says exactly one participant is to be present. The subordinate constraint specifies some additional characteristics of that participant.

**Figure 1: Constraints Format – only one allowed**

1. **SHALL** contain exactly one [1..1] **participant** (CONF:2777).
  - a. This participant **SHALL** contain exactly one [1..1] `@typeCode="LOC"` (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) (CONF:2230).

In the next figure, the constraint says only one participant “like this” is to be present. Other participant elements are not precluded by this constraint.

**Figure 2: Constraints Format – only one like this allowed**

1. **SHALL** contain exactly one [1..1] **participant** (CONF:2777) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="LOC"` (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) (CONF:2230).

## 2.3 Null Flavor

Information technology solutions store and manage data, but sometimes data are not available; an item may be unknown, not relevant, or not computable or measureable. In HL7, a flavor of null, or `nullFlavor`, describes the reason for missing data.

**Figure 3: nullFlavor Example**

```
<raceCode nullFlavor="ASKU"/>
<!--coding a raceCode when the patient declined to specify his/her
race-->

<raceCode nullFlavor="UNK"/>
<!--coding a raceCode when the patient's race is unknown-->
```

Use null flavors for unknown, required, or optional attributes:

- **NI** No information. This is the most general and default null flavor.
- **NA** Not applicable. Known to have no proper value (e.g., last menstrual period for a male).
- **UNK** Unknown. A proper value is applicable, but is not known.
- **ASKU** Asked, but not known. Information was sought, but not found (e.g., the patient was asked but did not know).
- **NAV** Temporarily unavailable. The information is not available, but is expected to be available later.
- **NASK** Not asked. The patient was not asked.
- **MSK** There is information on this item available but it has not been provided by the sender due to security, privacy, or other reasons. There may be an alternate mechanism for gaining access to this information.
- **OTH** The actual value is not and will not be assigned a standard coded value. An example is the name or identifier of a clinical trial.

This above list contains those null flavors that are commonly used in clinical documents. For the full list and descriptions, see the `nullFlavor` vocabulary domain in the in the HL7 standard, *Clinical Document Architecture, Release 2.0*.

Any **SHALL** conformance statement may use `nullFlavor`, unless the attribute is required or the `nullFlavor` is explicitly disallowed. **SHOULD** and **MAY** conformance statements may also use `nullFlavor`.

# PART A—QRDA-I DSTU R3.1 Supplementary Implementation Guide for Eligible Professional Programs

## 3 Overview

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### 3.1 Background

Part A of this guide is a CMS Quality Reporting Document Architecture Category I (QRDA-I) supplementary implementation guide to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture Category I, Release 1, DSTU Release 3.1 (published April, 2016)*, referred to as the *QRDA-I Implementation Guide* in this guide. This guide describes additional conformance statements and constraints for electronic health record (EHR) data submissions that are required for reporting information to the Centers for Medicare and Medicaid Services (CMS) EHR Incentive Program 2017 Reporting Year for the Eligible Professional programs.

The purpose of this Part A of the supplemental guide is to serve as a companion to the original *QRDA-I Implementation Guide* for entities such as Eligible Professional (EP), Group Practice Reporting Option (GPRO), and Data Submission Vendors (DSV) to submit QRDA-I data for consumption by CMS systems including the Physician Quality Reporting System (PQRS).

Each QRDA Category I report contains quality data for one patient for one or more quality measures, where the data elements in the report are defined by the particular measure(s) being reported on. A QRDA Category I report contains raw applicable patient data. When pooled and analyzed, each report contributes the quality data necessary to calculate population measure metrics.

### 3.2 How to Read This QRDA-I Guide

CMS will process Clinical Quality Measure (CQM) QRDA-I documents originating from EHR systems. Submitted QRDA-I documents for EHR Incentive Program 2017 must meet the conformance statements specified in this guide in addition to the conformance statements specified in the *QRDA-I Implementation Guide*. Only documents that are valid against the Clinical Document Architecture (CDA) Release 2 schema enhanced to support the *sdtc* namespace (*CDA\_SDTC.xsd*) will be accepted for processing. Documents that are invalid against this rule will be rejected.

This guide is based on following rules:

1. The *QRDA-I Implementation Guide* provides information about QRDA data elements with conformance numbers and constraints. Some of these existing conformance restrictions have been modified in accordance with CMS system requirements. The "CMS\_" prefix (e.g., CMS\_0001) indicates the new conformance statements. The "\_C01" postfix indicates that the conformance statement from the base HL7 QRDA-I, R3.1 standard is further constrained in this guide.
2. The original **SHALL/SHOULD/MAY** keywords along with conformance numbers from the *QRDA-I Implementation Guide* for relevant data elements and attributes have been included in this guide for ease of reference. For brevity, the hierarchy of enclosing elements has not been shown.

# 4 QRDA Category I Requirements

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## 4.1 QRDA Category I Reporting

A QRDA-I document should be submitted for each patient who meets the Initial Population criteria of an eCQM. The QRDA-I base standard allows either one or multiple measures to be reported in a QRDA-I document. For group practice reporting, CMS requires only one QRDA-I report to be submitted per patient aggregated for the group's Tax Identification Number (TIN) for a reporting period. For individual provider reporting, there should be one QRDA-I report per patient for the eligible professional's unique National Provider Identification (NPI) and Tax Identification Number (TIN) combination.

## 4.2 eCQM and Value Set Specifications

The following eCQM specifications<sup>2</sup> must be used for the 2017 Reporting Period:

- The eCQM Specifications for Eligible Professionals, published April 5, 2016<sup>3</sup> must be used for the EP programs.

PQRS is based on the eCQM Value Sets for Eligible Professionals Update April 5, 2016 , which is available at the Value Set Authority Center (VSAC).

## 4.3 Succession Management

This section describes the management of successive replacement documents for QRDA-I reports. (For example, a submitter notices an error in an earlier submission and wants to replace it with a corrected version.)

### 4.3.1 Final Action Processing used in QRDA-I Report Succession Management for PQRS

For the PQRS program, managing replacement documents is sometimes referred to as Final Action Processing (FAP). For group practice reporting, the FAP rules include the combination of the CMS program name, the TIN, the EHR Patient ID, and the submission timestamp. For individual provider reporting, the FAP rules include the combination of the CMS program name, the TIN, the NPI number, the EHR Patient ID, and the submission timestamp.

### 4.3.2 Program Identifiers used in Succession Management

The CMS program name requirement for QRDA-I submission is specified in [5.1.3 informationRecipient](#). Each QRDA-I report **must** contain only one CMS program name, which shall be selected from the [QRDA-I CMS Program Name value set \(2.16.840.1.113883.3.249.14.103\)](#).

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<sup>2</sup> The 2016 Annual Update of eCQM specifications were officially released on April 5, 2016

<sup>3</sup> [https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/eCQM\\_2014\\_EP\\_April2016.zip](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/eCQM_2014_EP_April2016.zip)

## 4.4 Value Sets

### 4.4.1 eCQM Specified Value Sets Take Precedence

There are some cases where the value sets specified in electronic Clinical Quality Measures (eCQMs) for clinical quality data criteria do not align with the value sets of the corresponding data elements specified in the QRDA-I standard, or they are subsets of the value sets that are specified in the QRDA-I standard. In these cases, the value sets that are specified in eCQMs always take precedence. For example, the routeCode attribute is defined to be selected from Medication Route FDA (2.16.840.1.113883.3.88.12.3221.8.7) in QRDA templates, but an eCQM criterion uses "Intravenous route SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.222)". In this case, the "Intravenous route SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.222)" shall take precedence over the Medication Route FDA (2.16.840.1.113883.3.88.12.3221.8.7) value set in constructing a QRDA-I document.

### 4.4.2 Value Sets Codes Case Sensitive

Codes from some code systems contain alpha characters. Case of these alpha characters will be validated by the PQRS systems. How codes are displayed in the Vocabulary file (voc.xml) and VSAC and in the VSAC exports will serve as the source of truth for conducting the case validations for value sets specified in eCQM specifications. For example, for a particular code, if alpha characters in this code were shown as upper case in VSAC or the Vocabulary file (voc.xml), then the validation will require them to be upper case.

The CMS program name codes shown in the QRDA-I CMS Program Name and QRDA-III CMS Program Name value sets are all uppercase, and they are case sensitive. Codes contained in the CMS Payer Groupings value set also must be uppercase as they are displayed in the value set table.

## 4.5 Time Zone

Time comparisons or elapsed time calculations are frequently involved as part of determining measure population outcomes. The use of Coordinated Universal Time (UTC) time zone offsets is recommended whenever precision is specified to hour, minute, or second, however inclusion of time zone offsets is not required for successful QRDA-I submissions to CMS. Consistency of UTC time zone offset use is critical to the calculation process when reporting data elements that use the *effectiveTime* or *time* elements, especially those directly utilized in measure calculations or outcomes. To ensure the highest accuracy in measure outcomes, if UTC time zone offsets are used in any template within a QRDA-I document, it is best that offsets be used throughout the file, otherwise it is best to not utilize offsets at all.

Currently, since the CMS Processing Facility is located in Warrington, VA, the default time zone is EST, however, this shouldn't be relied upon. A mixture of specified and unspecified time zones can cause unintended consequences.

**Figure 4: Time Zone Example**

```
<encounter>
  <text>Encounter Performed: Hospital Measures-Encounter
    Inpatient</text>
  ...
  <effectiveTime>
    <!-- Attribute: admission datetime -->
    <low value="20160325090000-0500"/>
    <!-- Attribute: discharge datetime -->
    <high value="20160329103000-0500"/>
  </effectiveTime>
  ...
</encounter>
```

## 4.6 Submit eCQM Version Specific Measure Identifier ONLY

For the 2017 Reporting Period, only the eCQM Version Specific Measure Identifier is required to uniquely identify the version of an eCQM. The eCQM Version Specific Measure Identifier must be submitted in both QRDA-I and QRDA-III. eCQM Version Neutral Identifier and eCQM Version Number are not used to validate that eCQM Sepecifications for EP April 2016 are being submitted.

It is recommended that eCQM Version Numbers not be included in the QRDA. This is due to a known data type mismatch issue between the Health Level Seven (HL7) QRDA and HQMF standards for the *versionNumber* attribute. Both the QRDA-I and QRDA-III standards are based on HL7 Clinical Document Architecture (CDA) R2, which is derived from the HL7 Reference Information Model (RIM) Version 2.07. In RIM 2.07, the *versionNumber* attribute is specified as INT data type. HQMF R2.1, however, is derived from HL7 RIM, Version 2.44, where *versionNumber* is specified as ST data type. The Version Numbers for eCQM Sepecifications for EP April 2016 generated by the Measure Authoring Tool (MAT) are string values such as 5.1.000 and 6.3.000 instead of integers such as 5 or 6. If a version number such as 5.1.000 were submitted, the QRDA files will fail the CDA\_SDTC.xsd schema validation and will be rejected by the receiving systems. If the *versionNumber* attribute is supplied as an INT value, the file will not be rejected, but the value will be ignored.

# 5 QRDA Category I Validation

## 5.1 Document-Level Template: QRDA Category I Report - CMS

This section defines the document-level templates in a QRDA-I document. All of the templates in the *QRDA-I Implementation Guide* are Clinical Document Architecture (CDA) templates.

### 5.1.1 General Header

This template describes header constraints that apply to the CMS Quality Reporting Document Architecture (QRDA) Category I document.

**Table 1: QRDA Category I Report - CMS (V3) Constraints Overview**  
 ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2016-03-01)

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		<a href="#">CMS_0001</a>	
@root	1..1	SHALL		<a href="#">CMS_0002</a>	2.16.840.1.113883.10.20.24.1.3
@extension	1..1	SHALL		<a href="#">CMS_0003</a>	2016-03-01
id	1..1	SHALL		<a href="#">1198-5363</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-5256</a>	US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4)
languageCode	1..1	SHALL		<a href="#">1198-5372</a>	urn:oid:2.16.840.1.113883.1.11.11526 (Language)
@code	1..1	SHALL		<a href="#">CMS_0010</a>	en
versionNumber	0..1	MAY		<a href="#">1198-5264</a>	
participant	0..*	MAY		<a href="#">1198-10003</a>	
associatedEntity	1..1	SHALL		<a href="#">CMS_0004</a>	
id	1..1	SHALL		<a href="#">CMS_0005</a>	
@nullFlavor	0..0	SHALL NOT		<a href="#">CMS_0052</a>	
@root	1..1	SHALL		<a href="#">CMS_0006</a>	2.16.840.1.113883.3.2074.1
@extension	1..1	SHALL		<a href="#">CMS_0008</a>	
component	1..1	SHALL		<a href="#">2239-28472</a>	
structuredBody	1..1	SHALL		<a href="#">2239-28473</a>	

component	1..*	SHALL		<a href="#">2239-28474</a>	
section	1..1	SHALL		<a href="#">2239-28475</a>	<a href="#">Reporting Parameters Section - CMS (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.2.1:2015-07-01)</a>
component	1..*	SHALL		<a href="#">2239-28476</a>	
section	1..1	SHALL		<a href="#">2239-28477</a>	Patient Data Section QDM (V3) - CMS (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2016-03-01)

1. Conforms to QDM-Based QRDA (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2016-02-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:CMS\_0001) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.1.3"** (CONF:CMS\_0002).
  - b. **SHALL** contain exactly one [1..1] **@extension="2016-03-01"** (CONF:CMS\_0003).
3. **SHALL** contain exactly one [1..1] **id** (CONF:1198-5363).
  - a. This id **SHALL** be a globally unique identifier for the document (CONF:1198-9991).
4. **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5256).
5. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet Language urn:oid:2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:1198-5372).
  - a. This languageCode **SHALL** contain exactly one [1..1] **@code="en"** (CONF:CMS\_0010).
6. **MAY** contain zero or one [0..1] **versionNumber** (CONF:1198-5264).
  - a. If versionNumber is present setId **SHALL** be present (CONF:1198-6387).
7. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-10003).
  - a. The participant, if present, **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:CMS\_0004).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] **id** (CONF:CMS\_0005) such that it
      1. **SHALL NOT** contain [0..0] **@nullFlavor** (CONF:CMS\_0052).
      2. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.3.2074.1"** CMS EHR Certification Number (formerly known as Office of the National Coordinator Certification Number) (CONF:CMS\_0006).
      3. **SHALL** contain exactly one [1..1] **@extension** (CONF:CMS\_0008). Note: The value of @extension is the Certification Number.
8. **SHALL** contain exactly one [1..1] **component** (CONF:2239-28472).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:2239-28473).

CMS EHR Certification Number is optional. If it is submitted, it SHALL conform to the constraints specified for the CMS EHR Certification Number.

- a. The participant, if present, **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:CMS\_0004).
  - i. This associatedEntity **SHALL** contain exactly one [1..1] **id** (CONF:CMS\_0005) such that it
    1. **SHALL NOT** contain [0..0] **@nullFlavor** (CONF:CMS\_0052).
    2. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.3.2074.1"** CMS EHR Certification Number (formerly known as Office of the National Coordinator Certification Number) (CONF:CMS\_0006).
    3. **SHALL** contain exactly one [1..1] **@extension** (CONF:CMS\_0008). Note: The value of @extension is the Certification Number.

- i. This structuredBody **SHALL** contain at least one [1..\*] **component** (CONF:2239-28474) such that it
  1. **SHALL** contain exactly one [1..1] [Reporting Parameters Section – CMS](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.17.2.1:2015-07-01) (CONF:2239-28475).
- ii. This structuredBody **SHALL** contain at least one [1..\*] **component** (CONF:2239-28476) such that it
  1. **SHALL** contain exactly one [1..1] **Patient Data Section QDM (v3)** – **CMS** (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2016-03-01) (CONF:2239-28477).

**Figure 5: General Header Example**

```
<realmCode code="US"/>
<typeId root="2.16.840.1.113883.1.3" extension="POCD_HD000040"/>

<!-- US Realm Header (V3) -->
<templateId root="2.16.840.1.113883.10.20.22.1.1"
  extension="2015-08-01"/>
<!-- QRDA Category I Framework (V3) -->
<templateId root="2.16.840.1.113883.10.20.24.1.1"
  extension="2016-02-01"/>
<!-- QDM-Based QRDA (V3) -->
<templateId root="2.16.840.1.113883.10.20.24.1.2"
  extension="2016-02-01"/>
<!-- QRDA Category I Report - CMS (V3) -->
<templateId root="2.16.840.1.113883.10.20.24.1.3"
  extension="2016-03-01"/>

<!-- This is the globally unique identifier for this QRDA-I
  document -->
<id root="d651b289-c487-4436-95d2-4c816e50b447"/>
<code code="55182-0" codeSystem="2.16.840.1.113883.6.1"
  codeSystemName="LOINC" displayName="Quality Measure Report"/>
<title>Good Health QRDA-I Report</title>

<!-- This is the document creation time -->
<effectiveTime value="201701109171504+0500"/>
<confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25"
  codeSystemName="HL7Confidentiality"/>
<languageCode code="en"/>
...

```

## 5.1.2 recordTarget

The recordTarget records the patient whose health information is described by the clinical document; it must contain at least one patientRole element.

**Table 2: recordTarget Constraints Overview**  
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2016-03-01)

XPath	Card.	Verb	Data Type	CONF#	Value
recordTarget	1..1	SHALL		<a href="#">2228-16598</a>	
patientRole	1..1	SHALL		<a href="#">2228-16856</a>	
id	0..1	SHOULD		<a href="#">2228-16857</a>	
@root	1..1	SHALL		<a href="#">2228-16858</a>	2.16.840.1.113883.4.572
id	1..1	SHALL		<a href="#">CMS_0009</a>	
@root	1..1	SHALL		<a href="#">CMS_0053</a>	
@extension	1..1	SHALL		<a href="#">CMS_0103</a>	
addr	1..*	SHALL		<a href="#">1198-5271</a>	US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)
patient	1..1	SHALL		<a href="#">2228-27570</a>	
name	1..1	SHALL		<a href="#">1198-5284-C01</a>	US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)
administrativeGenderCode	1..1	SHALL		<a href="#">CMS_0011</a>	urn:oid:2.16.840.1.113762.1.4.1 (ONC Administrative Sex)
birthTime	1..1	SHALL		<a href="#">2228-27571</a>	
raceCode	1..1	SHALL		<a href="#">CMS_0013</a>	urn:oid:2.16.840.1.114222.4.11.836 (Race)
sdtc:raceCode	0..*	MAY		<a href="#">CMS_0014</a>	urn:oid:2.16.840.1.114222.4.11.836 (Race)
ethnicGroupCode	1..1	SHALL		<a href="#">1198-5323</a>	urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity)

1. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:2228-16598).
  - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:2228-16856).

**PQRS:** If the payer is Medicare, Medicare HIC Number is required for PQRS (when the CMS Program Name is either "PQRS\_MU\_INDIVIDUAL" or "PQRS\_MU\_GROUP").

  - i. This patientRole **SHOULD** contain zero or one [0..1] **id** (CONF:2228-16857) such that it
    1. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.572" Medicare HIC number (CONF:2228-16858).

**PQRS:** Patient Identification Number is required for PQRS.

- ii. This patientRole **SHALL** contain exactly one [1..1] `id` (CONF:CMS\_0009) such that it
  1. **SHALL** contain exactly one [1..1] `@root` (CONF:CMS\_0053).  
Note: This is the provider's organization OID or other non-null value different than the OID for the Medicare HIC Number (2.16.840.1.113883.4.572).
  2. **SHALL** contain exactly one [1..1] `@extension` (CONF:CMS\_0103).  
Note: The value of `@extension` is the Patient ID.
  3. **SHALL** contain exactly one Patient Identifier Number (CONF:CMS\_0007).
- iii. This patientRole **SHALL** contain at least one [1..\*] `US Realm Address (AD.US.FIELDED)` (`identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2`) (CONF:1198-5271).
- iv. This patientRole **SHALL** contain exactly one [1..1] `patient` (CONF:2228-27570).
  1. This patient **SHALL** contain exactly one [1..1] `US Realm Person Name (PN.US.FIELDED)` (`identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1`) (CONF:1198-5284\_C01).
  2. This patient **SHALL** contain exactly one [1..1] `administrativeGenderCode`, which **SHALL** be selected from ValueSet `ONC Administrative Sex` `urn:oid:2.16.840.1.113762.1.4.1 DYNAMIC` (CONF:CMS\_0011).
    - a. If the patient's administrative sex is unknown, `nullFlavor=="UNK"` **SHALL** be submitted (CONF:CMS\_0029).
  3. This patient **SHALL** contain exactly one [1..1] `birthTime` (CONF:2228-27571).
    - a. **SHALL** be precise to day (CONF:1198-5300\_C01).
  4. This patient **SHALL** contain exactly one [1..1] `raceCode`, which **SHALL** be selected from ValueSet `Race` `urn:oid:2.16.840.1.114222.4.11.836 DYNAMIC` (CONF:CMS\_0013).
    - a. If the patient's race is unknown, `nullFlavor=="UNK"` **SHALL** be submitted (CONF:CMS\_0030).
    - b. If the patient declined to specify his/her race, `nullFlavor=="ASKU"` **SHALL** be submitted (CONF:CMS\_0031).
  5. This patient **MAY** contain zero or more [0..\*] `sdtc:raceCode`, which **SHALL** be selected from ValueSet `Race` `urn:oid:2.16.840.1.114222.4.11.836 DYNAMIC` (CONF:CMS\_0014).  
Note: If a patient has more than one race category, one race is reported in `raceCode`, and additional races are reported using `sdtc:raceCode`.
  6. This patient **SHALL** contain exactly one [1..1] `ethnicGroupCode`, which **SHALL** be selected from ValueSet `Ethnicity` `urn:oid:2.16.840.1.114222.4.11.837 DYNAMIC` (CONF:1198-5323).

- a. If the patient's ethnicity is unknown, nullFlavor="UNK" **SHALL** be submitted (CONF:CMS\_0032).
- b. If the patient declined to specify his/her ethnicity, nullFlavor="ASKU" **SHALL** be submitted (CONF:CMS\_0033).

**Figure 6: recordTarget Example, QRDA Category I Report - CMS (V3)**

```

<recordTarget>
  <patientRole>
    <!-- Medicare HIC Number -->
    <id root="2.16.840.1.113883.4.572" extension="321654987A" />
    <!-- Patient Identifier Number. The root OID could be provider's
        organization OID or other value -->
    <id root="2.16.840.1.113883.123.123.1" extension="022354" />
    <addr use="HP">
      <streetAddressLine>101 North Pole Lane</streetAddressLine>
      <city>Ames</city>
      <state>IA</state>
      <postalCode>50014</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1-781-271-3000"/>
    <patient>
      <name>
        <given>Jane</given>
        <family>Doe</family>
      </name>
      <administrativeGenderCode code="F"
        codeSystem="2.16.840.1.113883.5.1"/>
      <!-- If the patient administrative sex is unknown, use
          nullFlavor="UNK" -->
      <!-- <administrativeGenderCode nullFlavor="UNK"/> -->
      <birthTime value="19460102"/>
      <!-- raceCode "2131-1 (Other Race)" shall not be used for
          either raceCode or sdtc:raceCode -->
      <raceCode code="2106-3" codeSystem="2.16.840.1.113883.6.238"/>
      <!-- if the patient declined to specify his/her race, use
          nullFlavor="ASKU" -->
      <!-- <raceCode nullFlavor="ASKU"/> -->
      <!-- if the patient's race is unknown, use nullFlavor="UNK" -->
      <!-- <raceCode nullFlavor="UNK"/> -->
      <!-- Use sdtc:raceCode only if the patient has more than one
          race category -->
      <!-- <sdtc:raceCode code="2054-5"
          codeSystem="2.16.840.1.113883.6.238"/> -->
      <ethnicGroupCode code="2186-5"
        codeSystem="2.16.840.1.113883.6.238"/>
      <!-- if the patient declined to specify his/her ethnicity, use
          nullFlavor="ASKU" -->
      <!-- <ethnicGroupCode nullFlavor="ASKU"/> -->
      <!-- if the patient's ethnicity is unknown, use
          nullFlavor="UNK" -->
      <!-- <ethnicGroupCode nullFlavor="UNK"/> -->
    </patient>
  </patientRole>
</recordTarget>

```

### 5.1.3 informationRecipient

The **informationRecipient** element records the intended recipient of the information at the time the document is created.

**Table 3: informationRecipient Constraints Overview**  
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2016-03-01)

XPath	Card.	Verb	Data Type	CONF#	Value
informationRecipient	1..1	SHALL		<a href="#">2228-16703_C01</a>	
intendedRecipient	1..1	SHALL		<a href="#">2228-16704</a>	
id	1..1	SHALL		<a href="#">2228-16705_C01</a>	
@nullFlavor	0..0	SHALL NOT		<a href="#">CMS_0043</a>	
@root	1..1	SHALL		<a href="#">CMS_0025</a>	2.16.840.1.113883.3.249.7
@extension	1..1	SHALL		<a href="#">CMS_0026</a>	urn:oid:2.16.840.1.113883.3.249.14.103 (QRDA-I CMS Program Name )

1. **SHALL** contain exactly one [1..1] **informationRecipient** (CONF:2228-16703\_C01).
- a. This **informationRecipient** **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:2228-16704).
- i. This **intendedRecipient** **SHALL** contain exactly one [1..1] **id** (CONF:2228-16705\_C01).
1. This id **SHALL NOT** contain [0..0] **@nullFlavor** (CONF:CMS\_0043).
2. This id **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.3.249.7"** (CONF:CMS\_0025).
3. This id **SHALL** contain exactly one [1..1] **@extension**, which **SHALL** be selected from ValueSet **QRDA-I CMS Program Name** **urn:oid:2.16.840.1.113883.3.249.14.103 STATIC** 2016-03-01 (CONF:CMS\_0026).
- Note: The value of **@extension** is CMS Program Name.

**Table 4: QRDA-I CMS Program Name<sup>4</sup>**

Value Set: QRDA-I CMS Program Name <b>urn:oid:2.16.840.1.113883.3.249.14.103</b> Specifies the CMS Program for QRDA-I report submissions.			
Code	Code System	Code System OID	Print Name
PQRS_MU_INDIVIDUAL	CMS Program	urn:oid:2.16.840.1.113883.3.249.7	PQRS Meaningful Use Individual
PQRS_MU_GROUP	CMS Program	urn:oid:2.16.840.1.113883.3.249.7	PQRS Meaningful Use Group

<sup>4</sup> This table lists the CMS Program Name codes from the QRDA-I CMS Program Name value set that are applicable to EP Programs only.

**Figure 7: informationRecipient Example, QRDA Category I Report - CMS (V3)**

```
<!-- This example shows the @extension attribute with a value of "PQRS_MU_INDIVIDUAL", which indicates that this QRDA-I report is submitted to the PQRS Meaningful Use Individual program -->

<informationRecipient>
  <intendedRecipient>
    <!-- CMS Program Name is required. @nullFlavor is not allowed -->
    <id root="2.16.840.1.113883.3.249.7"
        extension="PQRS_MU_INDIVIDUAL"/>
  </intendedRecipient>
</informationRecipient>
```

## 5.1.4 legalAuthenticator

**Table 5: legalAuthenticator Constraints Overview**

ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2016-03-01)

XPath	Card.	Verb	Data Type	CONF#	Value
legalAuthenticator	1..1	SHALL		<a href="#">2228-13817</a>	
signatureCode	1..1	SHALL		<a href="#">1198-5583</a>	
@code	1..1	SHALL		<a href="#">1198-5584</a>	urn:oid:2.16.840.1.113883.5.89 (Participationsignature) = S
assignedEntity	1..1	SHALL		<a href="#">CMS_0100</a>	
representedOrganization	0..1	MAY		<a href="#">CMS_0101</a>	
id	1..*	SHALL		<a href="#">2239-28484</a>	
name	0..1	SHOULD		<a href="#">2239-28485</a>	

1. **SHALL** contain exactly one [1..1] **legalAuthenticator** (CONF:2228-13817).

Note: If a Data Submission Vendor (DSV) is used, the DSV is the legalAuthenticator.

- a. This legalAuthenticator **SHALL** contain exactly one [1..1] **signatureCode** (CONF:1198-5583).
  - i. This signatureCode **SHALL** contain exactly one [1..1] **@code="S"** (**CodeSystem**: Participationsignature **urn:oid:2.16.840.1.113883.5.89**) (CONF:1198-5584).
- b. This legalAuthenticator **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:CMS\_0100).
  - i. This assignedEntity **MAY** contain zero or one [0..1] **representedOrganization** (CONF:CMS\_0101).

When the legalAuthenticator is a DSV, the representedOrganization/id is the DSV TIN.

For DSV TIN, the **@root** attribute of the id element can be any OID. The **@extension** attribute of the id element contains the value of DSV TIN. If multiple id elements are present, the **@extension** of the first occurrence of this id element in a QRDA-I file will be treated as the DSV TIN.

1. The representedOrganization, if present, **SHALL** contain at least one [1..\*] **id** (CONF:2239-28484).
2. The representedOrganization, if present, **SHOULD** contain zero or one [0..1] **name** (CONF:2239-28485).

**Figure 8: legalAuthenticator Example, QRDA Category I Report - CMS EP (V3)**

```
<legalAuthenticator>
  <time value="20160312153222-0500"/>
  <signatureCode code="S"/>
  <assignedEntity>
    <id root="c3755fc2-fd8f-4903-96fe-e2bcde5d1d77"/>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedOrganization>
  </assignedEntity>
</legalAuthenticator>
```

### 5.1.5 documentationOf/serviceEvent

A serviceEvent represents the main act, such as a colonoscopy or a cardiac stress study, being documented.

**Table 6: documentationOf/serviceEvent Constraints Overview**

ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.3:2016-03-01)

XPath	Card.	Verb	Data Type	CONF#	Value
documentationOf	1..1	SHALL		<a href="#">2228-16579 C01</a>	
serviceEvent	1..1	SHALL		<a href="#">2228-16580</a>	
performer	1..1	SHALL		<a href="#">2228-16583 C01</a>	
@typeCode	1..1	SHALL		<a href="#">2228-16584</a>	PRF
assignedEntity	1..1	SHALL		<a href="#">2228-16586</a>	
id	1..1	SHALL		<a href="#">2228-16587 C01</a>	
@root	1..1	SHALL		<a href="#">2228-16588</a>	2.16.840.1.113883.4.6
assignedPerson	0..1	MAY		<a href="#">CMS_0019</a>	
name	0..1	MAY		<a href="#">CMS_0020</a>	
representedOrganization	1..1	SHALL		<a href="#">2228-16591</a>	
id	1..1	SHALL		<a href="#">2228-16592 C01</a>	
@root	1..1	SHALL		<a href="#">2228-16593</a>	2.16.840.1.113883.4.2

@extension	1..1	SHALL		<a href="#">CMS_0102</a>	
name	0..1	MAY		<a href="#">CMS_0022</a>	

1. SHALL contain exactly one [1..1] documentationOf (CONF:2228-16579\_C01) such that it
- a. SHALL contain exactly one [1..1] serviceEvent (CONF:2228-16580).

i. [PQRS] This serviceEvent SHALL contain exactly one [1..1] performer (CONF:2228-16583\_C01).

1. [PQRS] This performer SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CONF:2228-16584).

2. [PQRS] This performer SHALL contain exactly one [1..1] assignedEntity (CONF:2228-16586).

This assignedEntity id/@root='2.16.840.1.113883.4.6' coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI). A valid NPI is 10 numeric digits where the 10th digit is a check digit computed using the Luhn algorithm.

**PQRS Individual:** When the CMS Program Name is "PQRS\_MU\_INDIVIDUAL", provider's NPI is required and nullFlavor is not allowed. The NPI must be in the correct format.

**PQRS GPRO:** When the CMS Program Name is "PQRS\_MU\_GROUP", provider's NPI is optional and nullFlavor is allowed. If no NPI is submitted for GPRO, id/@root='2.16.840.1.113883.4.6' coupled with @nullFlavor="NA" SHALL be submitted, and @extension SHALL be omitted. If NPI is submitted for GPRO, the NPI must be in the correct format.

- a. [PQRS] This assignedEntity SHALL contain exactly one [1..1] id (CONF:2228-16587\_C01) such that it

i. [PQRS] SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:2228-16588).

- b. [PQRS] This assignedEntity MAY contain zero or one [0..1] assignedPerson (CONF:CMS\_0019).

i. [PQRS] The assignedPerson, if present, MAY contain zero or one [0..1] name (CONF:CMS\_0020).  
Note: This is the provider's name.

- c. [PQRS] This assignedEntity SHALL contain exactly one [1..1] representedOrganization (CONF:2228-16591).

This representedOrganization id/@root='2.16.840.1.113883.4.2' coupled with the id/@extension represents the organization's Tax Identification Number (TIN). The provided TIN must be in valid format (9 decimal digits).

- i. [PQRS] This representedOrganization SHALL contain exactly one [1..1] id (CONF:2228-16592\_C01) such that it

1. [PQRS] SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:2228-16593).

2. [PQRS] SHALL contain exactly one [1..1] @extension (CONF:CMS\_0102).

- ii. [PQRS] This representedOrganization MAY contain zero or one [0..1] name (CONF:CMS\_0022).

Note: This is the organization's name, such as clinic's name.

**Figure 9: documentationOf / serviceEvent Example for EP Individual**

```
<!-- Example for EP individual provider reporting -->
<informationRecipient>
    <!-- CMS Program Name is "PQRS_MU_INDIVIDUAL" -->
    <intendedRecipient>
        <id root="2.16.840.1.113883.3.249.7"
            extension="PQRS_MU_INDIVIDUAL"/>
    </intendedRecipient>
</informationRecipient>
...
<documentationOf>
    <serviceEvent classCode="PCPR">
        ...
        <!-- Only one performer is allowed for "PQRS_MU_INDIVIDUAL" -->
        <performer typeCode="PRF">
            <assignedEntity>
                <!--This is the provider's NPI -->
                <id root="2.16.840.1.113883.4.6" extension="1234567893" />
                <telecom value="mailto:npiUser@aClinic.com"/>
            <assignedPerson>
                <name>
                    <given>John</given>
                    <family>Smith</family>
                </name>
            </assignedPerson>
            <representedOrganization>
                <!--This is the organization's TIN, which is required for
                    "PQRS_MU_INDIVIDUAL" -->
                <id root="2.16.840.1.113883.4.2" extension="987654321"/>
                <name>Good Health Clinic</name>
                <telecom value="mailto:tinUser@aClinic.com"/>
                <addr>
                    <streetAddressLine>1601 NW 114th
                        street</streetAddressLine>
                    <streetAddressLine>Suite 151</streetAddressLine>
                    <city>Clive</city>
                    <state>IA</state>
                    <postalCode>50325</postalCode>
                    <country>US</country>
                </addr>
            </representedOrganization>
        </assignedEntity>
    </performer>
</serviceEvent>
</documentationOf>
```

**Figure 10: documentationOf / serviceEvent Example for EP Group Practice**

```
<!-- Example for EP Group Practice Reporting Option (GPRO) -->
<informationRecipient>
  <intendedRecipient>
    <!-- CMS Program Name is "PQRS_MU_GROUP" -->
    <id root="2.16.840.1.113883.3.249.7" extension="PQRS_MU_GROUP"/>
  </intendedRecipient>
</informationRecipient>
...
<documentationOf>
  <serviceEvent classCode="PCPR">
    ...
    <performer typeCode="PRF">
      <assignedEntity>
        <!-- When NPI is not submitted for GPRO, use @nullFlavor
            instead of @extension -->
        <id root="2.16.840.1.113883.4.6" nullFlavor="NA"/>
        <representedOrganization>
          <!-- This is the organization's TIN, which is required for
              GPRO and @nullFlavor is not allowed. -->
          <id root="2.16.840.1.113883.4.2" extension="123456789"/>
        ...
      </representedOrganization>
    </assignedEntity>
  </performer>
</serviceEvent>
</documentationOf>
```

## 5.2 Section-Level Templates

### 5.2.1 Measure Section

This section contains information about the eMeasure or eMeasures being reported. (An eMeasure is called an "eCQM" in the Meaningful Use program.) It must contain entries with the identifiers of all the eMeasures so that corresponding QRDA Quality Data Model (QDM) data element entry templates to be instantiated in the Patient Data Section are identified. Each eMeasure for which QRDA QDM data elements are being sent must reference eMeasure version specific identifier (`QualityMeasureDocument/id`).

This section contains information about the eMeasure or eMeasures being reported. (An eMeasure is called an "eCQM" in the Meaningful Use program.) It must contain entries with the identifiers of all the eMeasures so that corresponding QRDA Quality Data Model (QDM) data element entry templates to be instantiated in the Patient Data Section are identified. Each eMeasure for which QRDA QDM data elements are being sent must reference eMeasure version specific identifier (`QualityMeasureDocument/id`).

**Table 7: Measure Section (eMeasure Reference QDM) Constraints Overview**  
 organizer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.97)

XPath	Card.	Verb	Data Type	CONF#	Value
reference	1..1	SHALL		<a href="#">67-12808</a>	
@typeCode	1..1	SHALL		<a href="#">67-12809</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

XPath	Card.	Verb	Data Type	CONF#	Value
externalDocument	1..1	SHALL		<a href="#">67-12810</a>	
@classCode	1..1	SHALL		<a href="#">67-27017</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		<a href="#">67-12811</a>	
@root	1..1	SHALL		<a href="#">67-12812</a>	2.16.840.1.113883.4.738
@extension	1..1	SHALL		<a href="#">67-12813</a>	

1. **SHALL** contain exactly one [1..1] **reference** (CONF:67-12808) such that it
- SHALL** contain exactly one [1..1] `@typeCode="REFR"` refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:67-12809).
  - SHALL** contain exactly one [1..1] **externalDocument** (CONF:67-12810).
    - This externalDocument **SHALL** contain exactly one [1..1] `@classCode="DOC"` Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:67-27017).
    - This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:67-12811) such that it
      - SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.4.738"` (CONF:67-12812).  
Note: This OID indicates that the @extension contains the version specific identifier for the eMeasure.
      - SHALL** contain exactly one [1..1] `@extension` (CONF:67-12813).  
Note: This @extension SHALL equal the version specific identifier for eMeasure (i.e., QualityMeasureDocument/id)

Figure 11: Measure Section Example

```

<section>
  <!-- This is the templateId for Measure Section -->
  <templateId root="2.16.840.1.113883.10.20.24.2.2"/>
  <!-- This is the templateId for Measure Section QDM -->
  <templateId root="2.16.840.1.113883.10.20.24.2.3"/>
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Measure Section</title>
  <text>...</text>
  <!-- 1..* Organizers, each containing a reference to an
       eMeasure -->
  <entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- This is the templateId for Measure Reference -->
      <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
      <!-- This is the templateId for eMeasure Reference QDM -->
      <templateId root="2.16.840.1.113883.10.20.24.3.97"/>
      <statusCode code="completed"/>
      <reference typeCode="REFR">
        <externalDocument classCode="DOC" moodCode="EVN">
          <!-- This is the eMeasure version specific identifier -->
          <id root="2.16.840.1.113883.4.738"
              extension="40280381-4b9a-3825-014b-c11ae59d069b"/>
        </externalDocument>
      </reference>
    </organizer>
  </entry>
</section>

```

```

    </reference>
    </organizer>
    <organizer>
        ...
        </organizer>
    </entry>
</section>

```

## 5.2.2 Reporting Parameters Section - CMS

The Reporting Parameters Section provides information about the reporting time interval, and may contain other information that provides context for the patient data being reported.

**Table 8: Reporting Parameters Section – CMS Constraints Overview**  
 section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1:2015-07-01)

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		CMS_0040	
@root	1..1	SHALL		CMS_0041	2.16.840.1.113883.10.20.17.2.1
@extension	1..1	SHALL		CMS_0042	2015-07-01
entry	1..1	SHALL		CMS_0023	
act	1..1	SHALL		CMS_0024	Reporting Parameters Act - CMS EP (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2 015-07-01)

1. Conforms to Reporting Parameters Section template (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1).
2. SHALL contain exactly one [1..1] **templateId** (CONF:CMS\_0040) such that it
  - a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.2.1" (CONF:CMS\_0041).
  - b. SHALL contain exactly one [1..1] @extension="2015-07-01" (CONF:CMS\_0042).
3. SHALL contain exactly one [1..1] **entry** (CONF:CMS\_0023) such that it
  - a. SHALL contain exactly one [1..1] **Reporting Parameters Act - CMS** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2015-07-01) (CONF:CMS\_0024).

### 5.2.2.1 Reporting Parameters Act – CMS

**Table 9: Reporting Parameters Act - CMS EP Constraints Overview**  
 act (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8:2015-07-01)

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		CMS_0044	
@root	1..1	SHALL		CMS_0045	2.16.840.1.113883.10.20.17.3.8
@extension	1..1	SHALL		CMS_0046	2015-07-01

XPath	Card.	Verb	Data Type	CONF#	Value
effectiveTime	1..1	SHALL		<a href="#">23-3273</a>	
low	1..1	SHALL		<a href="#">23-3274</a> <a href="#">CMS_0027</a>	
@value	1..1	SHALL		<a href="#">CMS_0048</a>	
high	1..1	SHALL		<a href="#">23-3275</a> <a href="#">CMS_0028</a>	
@value	1..1	SHALL		<a href="#">CMS_0050</a>	

1. Conforms to Reporting Parameters Act template (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:CMS\_0044) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8" (CONF:CMS\_0045).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-07-01" (CONF:CMS\_0046).
3. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:23-3273).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:23-3274).
    - i. This low **SHALL** contain exactly one [1..1] @value (CONF:CMS\_0048).
    - ii. **SHALL** be precise to day (CONF:CMS\_0027)
  - b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:23-3275).
    - i. This high **SHALL** contain exactly one [1..1] @value (CONF:CMS\_0050).
    - ii. **SHALL** be precise to day (CONF:CMS\_0028)

### Figure 12: Reporting Parameters Section - CMS and Reporting Parameters Act – CMS Example

```

<section>
  <templateId root="2.16.840.1.113883.10.20.17.2.1"/>
  <templateId root="2.16.840.1.113883.10.20.17.2.1" extension="2015-07-01"/>
  <code code="55187-9" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Reporting Parameters</title>
  <text>
    ...
    <list>
      <item>Reporting period: 01 Jan 2016 – 31 December 2016</item>
    </list>
    ...
  </text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
      <templateId root="2.16.840.1.113883.10.20.17.3.8" extension="2015-07-01"/>
      <code code="252116004" codeSystem="2.16.840.1.113883.6.96" displayName="Observation Parameters"/>
      <effectiveTime>
        <low value="20160101"/>
        <high value="20161231"/>
      </effectiveTime>
    </act>
  </entry>
</section>

```

### 5.2.3 Patient Data Section QDM (V3) - CMS

The Patient Data Section QDM (V3) - CMS contains entries that conform to the QDM approach to QRDA. The four supplemental data elements (Administrative Sex, Race, Ethnicity, and Payer) specified in the eCQMs are required to be reported to CMS. While the administrative sex, race, and ethnicity data are sent in the document header, the payer supplemental data element is submitted using the Patient Characteristic Payer template contained in the patient data section. So the Patient Data Section QDM (V3) - CMS shall contain at least one Patient Characteristic Payer template and at least one entry template that is other than the Patient Characteristic Payer template. As for what entry templates and how many entry templates should be included in the patient data section for the referenced eCQMs, it should adhere to the "smoking gun" philosophy described in the QRDA-I standard. This guide follows the specifications of entry templates as defined in the base QRDA-I standard.

**Table 10: Patient Data Section QDM (V3) – CMS Constraints Overview**  
 section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2016-03-01)

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		<a href="#">CMS_0036</a>	
@root	1..1	SHALL		<a href="#">CMS_0037</a>	2.16.840.1.113883.10.20.24.2.1
@extension	1..1	SHALL		<a href="#">CMS_0038</a>	2016-03-01
entry	1..*	SHALL		<a href="#">CMS_0051</a>	
entry	1..*	SHALL		<a href="#">2228-14430_C01</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		<a href="#">2228-14431</a>	Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55)

1. Conforms to Patient Data Section QDM (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2016-02-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:CMS\_0036) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.2.1"** (CONF:CMS\_0037).
  - b. **SHALL** contain exactly one [1..1] **@extension="2016-03-01"** (CONF:CMS\_0038).
3. **SHALL** contain at least one [1..\*] **entry** (CONF:CMS\_0051) such that it
  - a. **SHALL** contain exactly one [1..1] entry template that is other than the Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:CMS\_0039).
4. **SHALL** contain at least one [1..\*] **entry** (CONF:2228-14430\_C01) such that it
  - a. **SHALL** contain exactly one [1..1] Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:2228-14431).

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**Figure 13: Patient Data Section QDM (V3) – CMS Example**

```

<section>
    <!-- Patient Data Section -->
    <templateId root="2.16.840.1.113883.10.20.17.2.4" />
    <!-- Patient Data Section QDM (V3) -->
    <templateId root="2.16.840.1.113883.10.20.24.2.1"
        extension="2016-02-01" />
    <!-- Patient Data Section QDM (V3) - CMS-->
    <templateId root="2.16.840.1.113883.10.20.24.2.1"
        extension="2016-03-01" />
    <code code="55188-7" codeSystem="2.16.840.1.113883.6.1"
        displayName="Patient Data"/>
    <title>Patient Data</title>
    <text>...</text>
    <entry typeCode="DRIV">
        ...
    </entry>
    <entry typeCode="DRIV">
        ...
    </entry>
    <!--supplemental data elements-->
    <!-- payer-->
    <entry typeCode="DRIV">
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.24.3.55"
                extension="2014-12-01" />
            <id root="4ddf1cc3-e325-472e-ad76-b2c66a5ee164" />
            <code code="48768-6" codeSystem="2.16.840.1.113883.6.1"
                codeSystemName="LOINC" displayName="Payment source" />
            <statusCode code="completed" />
            <effectiveTime>
                <low value="20140303" />
                <high value="20170303" />
            </effectiveTime>
            <value xsi:type="CD" code="1"
                codeSystem="2.16.840.1.113883.3.221.5"
                codeSystemName="Source of Payment Typology"
                displayName="Medicare"
                sdtc:valueSet="2.16.840.1.114222.4.11.3591" />
        </observation>
    </entry>
    ...
</section>

```

### 5.2.3.1 “Not Done” with a Reason

For a QDM data element that is not done (when `negationInd="true"`) with a reason, such as “Medication, Order not done: Medical Reason”, an `entryRelationship` to a Reason (`templateId: 2.16.840.1.113883.10.20.24.3.88`) with an `actRelationship` type of “RSON” is required. This is specified in the section 3.4 Asserting an Act Did Not Occur with a Reason in the base HL7 QRDA-I, R3.1 Implementation Guide. To summarize, the following steps shall be followed:

- Set the containing act attribute `negationInd="true"`
- Use `code/[@nullFlavor="NA"]`
- Set **code attribute** `code/sdtc:valueSet="[VSAC value set OID]"`
- Use `code/originalText` for the text description of the concept in the pattern “None of value set: [value set name]”

**Figure 14: Not Done Example**

```
<!--Medication administered not done, patient refusal: Drug declined  
by patient - reason unknown. No "Antibiotic Medications for  
Pharyngitis" were administered -->  
<act classCode="ACT" moodCode="EVN" negationInd="true">  
  <templateId root="2.16.840.1.113883.10.20.24.3.42" extension="2016-  
    02-01" />  
  <id root="517d5bbb-03a8-4400-8a78-754321641159" />  
  <code code="416118004" displayName="Administration"  
    codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />  
  <statusCode code="completed" />  
  ...  
  <entryRelationship typeCode="COMP">  
    <substanceAdministration classCode="SBADM" moodCode="EVN">  
      ...  
      <manufacturedProduct classCode="MANU">  
        <templateId root="2.16.840.1.113883.10.20.22.4.23"  
          extension="2014-06-09" />  
        <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e" />  
        <manufacturedMaterial>  
          <code nullFlavor="NA"  
            sdtc:valueSet="2.16.840.1.113883.3.464.1003.196.12.1001">  
              <originalText> None of value set: Antibiotic Medications  
                for Pharyngitis</originalText>  
            </code>  
          </manufacturedMaterial>  
        </manufacturedProduct>  
      ...  
    </substanceAdministration>  
  </entryRelationship>  
  ...
```

DRAFT

# PART B—QRDA-III DSTU R1.1 Supplementary Implementation Guide for Eligible Professional Programs

## 6 Overview

---

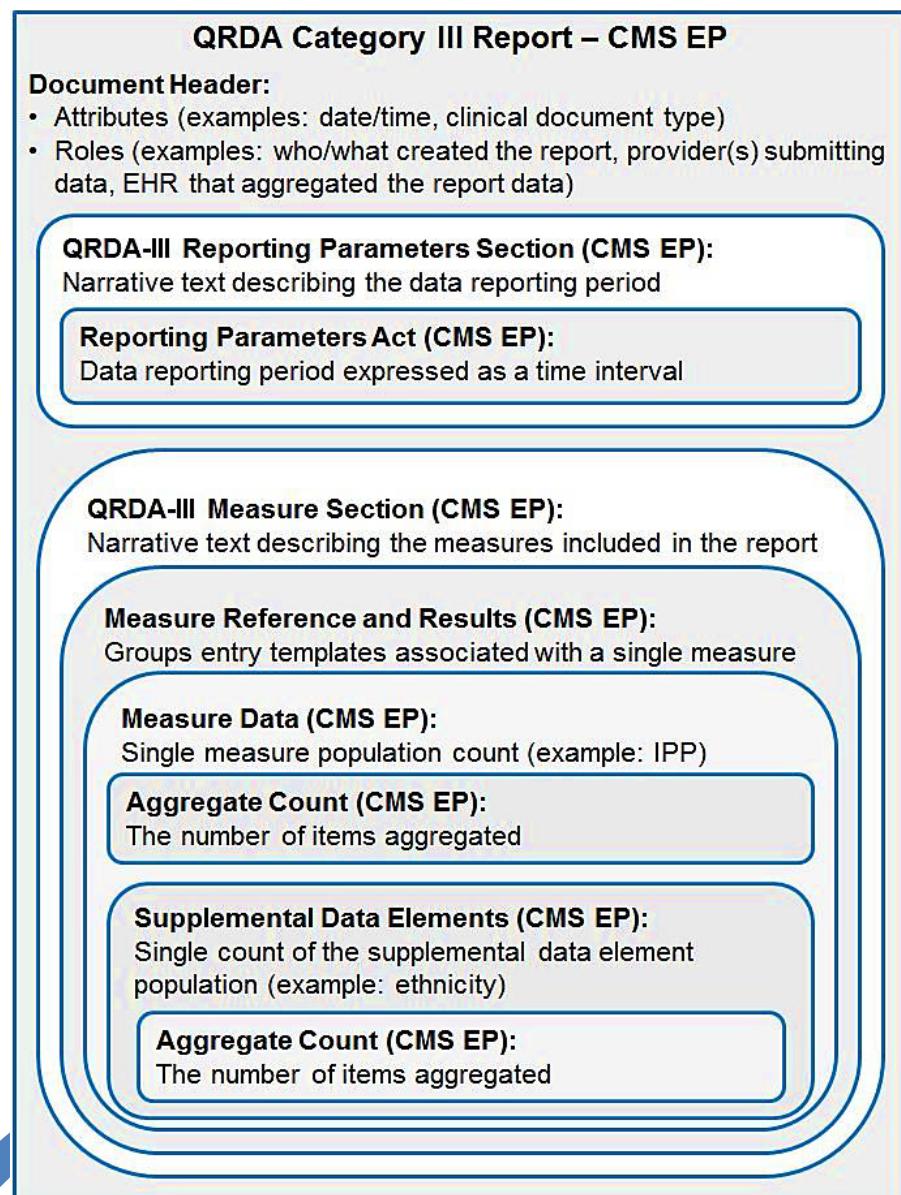
### 6.1 Background

Part B of this guide is a CMS Quality Reporting Document Architecture Category III (QRDA-III) supplementary implementation guide to the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, DSTU Release 1.1* (published March 17, 2016) (referred to as the *QRDA-III Implementation Guide* in this guide). Templates defined in this supplementary implementation guide are conformant with the *QRDA-III Implementation Guide*. CMS EP Programs QRDA-III templates address aggregate reporting requirements for:

- Comprehensive Primary Care Plus (CPC+)
- Electronic Health Record (EHR) Incentive program (Meaningful Use)
- Physician Quality Reporting System (PQRS)

A QRDA-III report is an aggregate quality report. Each QRDA-III report contains calculated summary data for one or more measures for a specified population of patients within a particular health system over a specific period of time. Summary data in the QRDA-III report are defined based on the specified measures in HL7 Health Quality Measures Format (HQMF), which standardizes the representation of a health quality measure as an electronic document. The structure of a QRDA-III report is depicted in the following figure.



**Figure 15: QRDA-III Report Structure Example**

## 6.2 2015 Edition Health IT Certification Criteria

With the 2015 Edition Health IT Certification Criteria final rule,<sup>5</sup> new functionality requirements were introduced for systems that calculate and report measures to CMS. This new functionality is listed in §170.315(c)(1) - (4).

For program year 2017, CPC+ participants are required to, at a minimum, adopt technology meeting 2015 Edition eCQM reporting Criteria (c1, c2, c3, c4) for CPC+ measures. For CPC+, HIT vendors do not need to have completed certification for these capabilities by January 1, 2017; however, they will be expected to complete certification by the end of 2017. CPC+

<sup>5</sup> 2015 Edition Health IT Certification Criteria final rule.

<https://www.federalregister.gov/articles/2015/10/16/2015-25597/2015-edition-health-information-technology-health-it-certification-criteria-2015-edition-base>

participants will need to attest that these capabilities have been adopted. For information related to C4 filtering capability for CPC+, please see below.

## 6.2.1 C4 Filtering

HIT products certified for quality measurement reporting must be able to filter eCQM results based on certain filters present in the system. Those filters are specified in the regulation and referred to collectively as C4. The output of a QRDA I or QRDA III file for the various CMS quality reporting programs is based on the applicable C4 filters for those programs. For each program, filters needed for producing the reporting may be different. For further information related to the output of QRDA III data based on these filters for the CPC+ program, please see below.

### 6.2.1.1 C4 Filters for CPC+

The following filters are currently available in Cypress and should be used in combination with each other for CPC+ as the filter for:

- **CPC+ practice site address** - must be based on the physical address (the address should include suite number etc.) of the CPC+ practice site
- **Taxpayer Identification Number (TIN)** - must be the TIN(s) used by the CPC+ practice site for the CPC+ practice site reporting
- **National Provider Identifier (NPI)** - must only include those that are participating in CPC+ at the given CPC+ practice site address

In the future, other filters may become available within Cypress at which time further clarification will be provided.

## 6.3 How to Read This QRDA-III Guide

This guide includes the formal template definitions and submission criteria for submitting QRDA-III documents to CPC+ program, EHR Incentive Program (Meaningful Use), and PQRS for Eligible Professionals. Some of the conformance statements in the *HL7 CDA Release 2: QRDA Category III (QRDA-III), DSTU Release 1.1* have been further constrained to meet the specific requirements from these CMS EP programs. This guide shows all parent template definitions from the base *QRDA-III Implementation Guide* together with the CMS specific constraints.

## 7 QRDA Category III Submission Rules

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CMS will process CQM QRDA-III documents originating from EHR systems. Submitted QRDA-III documents must meet the conformance statements specified in [8—QRDA-III Validation](#) of this implementation guide.

### 7.1 Comprehensive Primary Care Plus (CPC+) Submissions

Each CPC+ practice is a single, physical (brick and mortar) location identified by the participant's address. Each CPC+ practice site submitting QRDA-III files for the 2017 Measurement Year must provide the minimum number<sup>6</sup> of measures required by the CPC+ program.

For CPC+ measures, the CQM population is inclusive of all patients seen at the CPC+ practice site location as follows:

- 1) If the CPC+ practice site is a solo-provider site, the eCQM population includes all patients who had at least one visit at the CPC+ practice site location in the Measurement Year and who meet the initial population criteria of the eCQM.
- 2) If the CPC+ practice site includes multiple providers (CPC+ and non-CPC+), the CQM population must include all patients who had at least one visit with a provider(s) who is participating in CPC+ at the given CPC+ practice site in the Measurement Year and who meet the initial population criteria of the eCQM.

Note that CPC+ practice sites on a shared EHR system with a non-CPC+ practice site may count quality criteria that were performed at the non-CPC+ practice site if the data are contained within the CPC+ practice site's certified EHR and the patient had one or more visits in the Measurement Year at the CPC+ practice site location and meets the initial population criteria for the measure.

- 3) The measurement period for the CPC+ program begins on January 1, 2017 and ends on December 31, 2017. Data collected during the measurement period should be submitted from January 1, 2018 through February 28, 2018.
- 4) QRDA-III submissions for CPC+ will use the April 2016 versions of EP eCQMs.

### 7.2 EHR Incentive Program (Meaningful Use) Submissions

EHR Incentive Program submissions must contain nine of the 64 EP CQMs outlined for reporting as part of the EHR Incentive Program (Meaningful Use). The nine CQMs selected for submission must cover at least three of the six National Quality Strategy domains. QRDA-III submissions for the EHR Incentive Program will contain April 2016 versions of EP CQMs.

The EHR Incentive Program CQM populations include all patients seen by the EP during the reporting period, which is one full year (January 1, 2017 – December 31, 2017) or a calendar quarter within the calendar year (i.e., January 1, 2017 – March 31, 2017). EPs who are in their first year of participation in the EHR Incentive Program can also use any 90-day period within the calendar year 2017 as the data reporting period. Data collected during the reporting period may then be submitted January 1, 2018 through February 28, 2018. Please note that EPs who are in their first year of participation in the EHR Incentive Program must submit their CQMs via attestation by October 1, 2017 in order to avoid the EHR Incentive Program payment adjustment in the subsequent year.

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<sup>6</sup> The minimum number of measures required by the CPC+ program will be provided when the information is available.

## 7.3 Physician Quality Reporting System (PQRS) Submissions

PQRS QRDA-III submissions must contain at least nine of the 64 EP CQMs outlined for reporting as part of the EHR Incentive Program (Meaningful Use). The nine CQMs selected for submission must cover at least three of the six National Quality Strategy domains. QRDA-III submissions for PQRS reporting programs will contain April 2016 versions of EP CQMs.

For PQRS Group Practice Reporting Option (GPRO) QRDA-III submissions, a "group practice" consists of a physician group practice defined by a single TIN with two or more individual EPs who have reassigned billing rights to the TIN. If the EP also reports through a different TIN that is not participating as a GPRO, then the EP may also report individually through that alternate TIN.

For the PQRS individual EP reporting, CQM populations include all Medicare patients seen by the EP during the reporting period, which is one full year (January 1, 2017 - December 31, 2017). For PQRS GPRO reporting, CQM populations include all unique Medicare patients from all practice sites in the group practice seen by the group during the reporting period (January 1, 2017 - December 31, 2017). Data for both individual EPs and GPROs is then submitted January 1, 2017 through February 28, 2017.

## 7.4 Identifiers

For all CMS EP program reporting, certain identifiers are **mandatory**, meaning that they must be present in the QRDA-III report and no nulls are allowed. Exceptions and considerations are noted where applicable. Mandatory identifiers for CMS EP program reporting include:

- Alternative Payment Model (APM) Entity Identifier
  - For CPC+, this is the CPC+ Participant Identifier (ID). Note: Additional guidance regarding the CPC+ participant identifier assigned by the CPC+ program to the CPC+ practice site will be provided at a later time.
- National Provider Identifier (NPI)
  - Optional for PQRS GPRO reporting
- Tax Identification Number (TIN)
  - When a provider has more than one TIN, the provider is recorded for each NPI/TIN combination
- Each measure included in the QRDA-III report must reference the Version Specific ID.

## 7.5 Succession Management

This section describes the management of successive replacement documents for QRDA-III reports. (For example, a submitter notices an error in an earlier submission and wants to replace it with a corrected version.) For the PQRS program, managing replacement documents is sometimes referred to as Final Action Processing (FAP). The document that replaces a previous document will have a replacement relationship and will have a new unique QRDA-III document/id. The document/id of the previous QRDA-III will be referenced in the current document's /ClinicalDocument/relatedDocument/parentDocument/id.

### 7.5.1 Final Action Processing used in Succession Management

Currently, references to the 'id' of a parentDocument are not consistently used. The PQRS receiving system at CMS uses FAP to reliably determine the current version of a QRDA-III

document. There are different sets of FAP rules that apply to the PQRS program and the CPC+ program respectively.

Please note that the CMS receiving system will not be able to analyze specific elements out of earlier QRDA-III submissions. Therefore submitters should ensure all QRDA-III reports are complete data re-submissions.

### 7.5.2 FAP Rules for PQRS

For group practice reporting (except for the CPC+ program), the FAP rules include the combination of the CMS program name, the TIN, and the submission timestamp. For individual reporting (except for the CPC+ program), the FAP rules include the combination of the CMS program name, the TIN, the NPI number, and the submission timestamp.

When submitting a replacement QRDA-III report for the PQRS program use the same TIN or the same TIN/NPI. For example, if a QRDA-III report containing data for eCQMs 1, 2, and 3 was submitted on Monday and a replacement QRDA-III report for the same TIN/NPI was resubmitted the next day for eCQMs 1, 2, and 4. Only eCQMs 1, 2, and 4 contained in the latest submission will be used for final processing. Data submitted for eCQM 3 on Monday would not be marked for final processing and will not be used for PQRS analysis.

### 7.5.3 FAP Rules for CPC+

The last file successfully submitted for CPC+ by a CPC+ practice site is used to determine if that CPC+ practice site satisfactory met reporting requirements for the program year.

For QRDA-III files that are submitted to the CPC+ program, the FAP rules include the combination of the CMS program name, the CPC+ Participant Identifier, the submission timestamp.

### 7.5.4 Program Identifiers used in Succession Management

The CMS program name requirement for QRDA-III submission is specified in [8.1.4—InformationRecipient](#). Each QRDA-III report **must** contain only one CMS program name, which shall be selected from the [QRDA-III CMS Program Name value set \(2.16.840.1.113883.3.249.14.101\)](#). The CMS program name specified in a QRDA-III report ensures the report is routed to the correct CMS program once it is received by the CMS QRDA-III receiving system. Therefore, when submitting a QRDA-III report to CMS, it is critical to specify the correct CMS program. The CMS program name is also used for managing successive replacement QRDA-III documents. When submitting a replacement QRDA-III report, the replacement QRDA-III report **must** contain the same CMS program name as specified in the report that it is intended to replace. The timestamp of the latest file submitted will be used to determine which file is to be analyzed for the specified CMS program, therefore an error in the CMS program name will produce the wrong analysis. For example, if you are submitting a file initially for CPC+, find an error and resubmit the file with another CMS program name, such as MU\_ONLY, the file will only be analyzed for MU\_ONLY.

## 7.6 Time Zone

Time comparisons or elapsed time calculations are frequently involved as part of determining measure population outcomes. The use of UTC time zone offsets is recommended whenever precision is specified to hour, minute, or second, however inclusion of time zone offsets is not required for successful QRDA-III submissions to CMS. Consistency of UTC time zone offset use is critical to the calculation process when reporting data elements that use the *effectiveTime* or *time* elements, especially those directly utilized in measure calculations or outcomes. To ensure the highest accuracy in measure outcomes, if UTC time zone offsets are used in any template

within a QRDA-III document, it is best that offsets be used throughout the file, otherwise it is best to not utilize offsets at all.

Currently, since the CMS Processing Facility is located in Warrington, VA, the default time zone is EST, however, this shouldn't be relied upon. A mixture of specified and unspecified time zones can cause unintended consequences.

DRAFT

# 8 QRDA Category III Validation

## 8.1 Document-Level Template: QRDA Category III Report - CMS EP (V2)

[ClinicalDocument: templateId  
2.16.840.1.113883.10.20.27.1.2:2016-03-01 (open) ]

**Table 11: QRDA Category III Report - CMS EP (V2) Contexts**

Contained By	Contains
	<a href="#">QRDA Category III Measure Section (CMS EP) (V2)</a> <a href="#">QRDA Category III Reporting Parameters Section (CMS EP) (V2)</a>

This template describes constraints that apply to the Quality Reporting Document Architecture (QRDA) Document Category III Report for CMS Eligible Professionals (EP) Programs including the Comprehensive Primary Care Plus (CPC+) program, EHR Incentive Program (Meaningful Use), and Physician Quality Reporting System (PQRS).

Document-level templates describe the rules for constructing a conforming CDA document. They include constraints on the CDA header and identify contained section-level templates. The document-level template contains the following information:

- Description and explanatory narrative
- Template metadata (e.g., templateId, etc.)
- Header constraints
- Required section-level templates

1. Conforms to QRDA Category III Report (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.1.1:2016-02-01).
2. **SHALL** contain exactly one [1..1] **realmCode** (CONF:2226-17226).
  - a. This realmCode **SHALL** contain exactly one [1..1] **@code="US"** (CONF:2226-17227).
3. **SHALL** contain exactly one [1..1] **typelid** (CONF:2226-18186).
  - a. This typelid **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.1.3"** (CONF:2226-18187).
  - b. This typelid **SHALL** contain exactly one [1..1] **@extension="POCD\_HD000040"** (CONF:2226-18188).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2226-17208) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.1.1"** (CONF:2226-17209).

Note: QRDA Category III Report (QRDA III)

  - b. **SHALL** contain exactly one [1..1] **@extension="2016-02-01"** (CONF:2226-21168).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711280) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.1.2"** (CONF:2233-711281).
  - b. **SHALL** contain exactly one [1..1] **@extension="2016-03-01"** (CONF:2233-711305).
6. **SHALL** contain exactly one [1..1] **id** (CONF:2226-17236).
  - a. This id **SHALL** be a globally unique identifier for the document (CONF:2226-17242).
7. **SHALL** contain exactly one [1..1] **code** (CONF:2226-17210).

- a. This code **SHALL** contain exactly one [1..1] `@code="55184-6"` Quality Reporting Document Architecture Calculated Summary Report (CONF:2226-19549).
- b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.1"` (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2226-21166).
- 8. **SHALL** contain exactly one [1..1] **title** (CONF:2226-17211).
- 9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:2226-17237).
  - a. The content **SHALL** be a conformant US Realm Date and Time (DTM.US.FIELDDED) (2.16.840.1.113883.10.20.22.5.4) (CONF:2226-18189).
- 10. **SHALL** contain exactly one [1..1] **confidentialityCode** (CONF:2233-711174).
  - a. This confidentialityCode **SHALL** contain exactly one [1..1] `@code="N"` Normal (CodeSystem: ConfidentialityCode urn:oid:2.16.840.1.113883.5.25 **STATIC**) (CONF:2233-711246).
- 11. **SHALL** contain exactly one [1..1] **languageCode** (CONF:2233-711173).
  - a. This languageCode **SHALL** contain exactly one [1..1] `@code="en"` English (CodeSystem: Language urn:oid:2.16.840.1.113883.6.121) (CONF:2233-711247).

### 8.1.1 recordTarget

QRDA-III is an aggregate summary report. Therefore CDA's required `recordTarget/id` is nulled. The `recordTarget` element is designed for single patient data and is required in all CDA documents. In this case, the document does not contain results for a single patient, but rather for groups of patients, and thus the `recordTarget` ID in QRDA Category III documents contains a nullFlavor attribute (is nulled).

- 12. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:2226-17212).
  - a. This `recordTarget` **SHALL** contain exactly one [1..1] **patientRole** (CONF:2226-17232) such that it
    - i. **SHALL** contain exactly one [1..1] **id** (CONF:2226-17233).
      - 1. This `id` **SHALL** contain exactly one [1..1] `@nullFlavor="NA"` (CONF:2226-17234).

**Figure 16: recordTarget Example, QRDA Category III Report - CMS EP**

```
<recordTarget>
  <patientRole>
    <id nullFlavor="NA"/>
  </patientRole>
</recordTarget>
```

### 8.1.2 author

The CDA standard requires an author with an identifier to represent a person or device that have created document content. For a given document, there may be multiple authoring individuals and/or devices. Authors may also be described in other header elements, depending on roles. The author/time value represents the time when the document was last edited. When there are multiple authors, the first author time usually correlates with the effectiveTime of the document, which is when the document was generated.

- 13. **SHALL** contain at least one [1..\*] **author** (CONF:2226-18156) such that it
  - a. **SHALL** contain exactly one [1..1] **time** (CONF:2226-18158).

- b. **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:2226-18157).
  - i. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:2233-711240).
  - ii. This assignedAuthor **MAY** contain zero or one [0..1] **assignedAuthoringDevice** (CONF:2226-18162).
    - 1. The assignedAuthoringDevice, if present, **SHALL** contain exactly one [1..1] **softwareName** (CONF:2226-18262).
  - iii. This assignedAuthor **SHALL** contain exactly one [1..1] **representedOrganization** (CONF:2226-18163).
    - 1. This representedOrganization **SHALL** contain at least one [1..\*] **name** (CONF:2226-18265).
- c. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:2226-19667).

**Figure 17: Device Author Example**

```
<author>
  <time value="20160311061231-0500"/>
  <assignedAuthor>
    <id root="3d0a32f3-5164-4a6f-8922-de3badf83ddd"/>
    <assignedAuthoringDevice>
      <softwareName>SOME Data Aggregator Transform Tool
        AS00016dev</softwareName>
    </assignedAuthoringDevice>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedOrganization>
  </assignedAuthor>
</author>
```

**Figure 18: Person Author Example**

```
<author>
  <time value="20160312114411-0500"/>
  <assignedAuthor>
    <id root="2.16.840.1.113883.4.6" extension="2589654740"
      assigningAuthorityName="NPI"/>
    <assignedPerson>
      <name>
        <given>Trevor</given>
        <family>Philips</family>
      </name>
    </assignedPerson>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedOrganization>
  </assignedAuthor>
</author>
```

### 8.1.3 custodian

The **custodian** element represents the organization that is in charge of maintaining and is entrusted with the care of the document.

**14. SHALL contain exactly one [1..1] custodian (CONF:2226-17213).**

- a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:2226-17214).
  - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:2226-17215).
    - 1. This representedCustodianOrganization **SHALL** contain at least one [1..\*] **id** (CONF:2226-18165).
    - 2. This representedCustodianOrganization **SHOULD** contain zero or one [0..1] **name** (CONF:2226-18166).
- b. This assignedCustodian **SHALL** represent the organization that owns and reports the data (CONF:2226-18246).

**Figure 19: Custodian Example**

```
<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>
```

#### 8.1.4 informationRecipient

The **informationRecipient** represents the CMS EP program the report is being submitted to.

**15. SHALL contain exactly one [1..1] informationRecipient (CONF: 2233-711158).**

- a. This **informationRecipient** **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF: 2233-711159).
  - i. This **intendedRecipient** **SHALL** contain exactly one [1..1] **id** (CONF: 2233-711160).

The **id/@root** specifies that this identifier represents a CMS Program.

- 1. This **id** **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.3.249.7"** CMS Program (CONF: 2233-711161).

The **id/@extension** contains the CMS Program the report is being submitted to.

- 2. This **id** **SHALL** contain exactly one [1..1] **@extension**, which **SHALL** be selected from ValueSet [QRDA-III CMS Program Name](#) **2.16.840.1.113883.3.249.14.101 STATIC** (CONF: 2233-711162).
  - a. If ClinicalDocument/informationRecipient/intendedRecipient/id/@ extension="CPC\_PLUS", then ClinicalDocument/participant/@typeCode="LOC" **SHALL** be present (CONF: 2233-711248).  
NOTE: The CPC+ CMS program name identifier code is yet to be determined.

**Table 12: QRDA-III CMS Program Name**

<b>Code</b>	<b>Code System</b>	<b>Code System OID</b>	<b>Print Name</b>
CPC_PLUS  (NOTE: The CPC+ CMS program name identifier code is yet to be determined. CPC_PLUS has been used as a CMS program name identifier placeholder at this time. Upon finalization of this term it will be updated throughout the IG.)	CMS Program	2.16.840.1.113883.3.249.7	CPC+
PQRS_MU_INDIVIDUAL	CMS Program	2.16.840.1.113883.3.249.7	PQRS Meaningful Use Individual
PQRS_MU_GROUP	CMS Program	2.16.840.1.113883.3.249.7	PQRS Meaningful Use Group
MU_ONLY	CMS Program	2.16.840.1.113883.3.249.7	Meaningful Use Only

**Figure 20: informationRecipient Example, QRDA Category III Report - CMS EP (V2)**

```
<informationRecipient>
  <intendedRecipient>
    <id root="2.16.840.1.113883.3.249.7" extension="CPC_PLUS"/>
  </intendedRecipient>
</informationRecipient>
```

### 8.1.5 legalAuthenticator

The `legalAuthenticator` element represents the individual legally responsible for ensuring the data they have aggregated in the report was aggregated correctly.

16. **SHALL** contain exactly one [1..1] `legalAuthenticator` (CONF:2226-17225).

Note: If a Data Submission Vendor (DSV) is used, the DSV is the `legalAuthenticator`.

a. This `legalAuthenticator` **SHALL** contain exactly one [1..1] `time` (CONF:2226-18167).

Note: This value is when the document was signed.

b. This `legalAuthenticator` **SHALL** contain exactly one [1..1] `signatureCode` (CONF:2226-18168).

i. This `signatureCode` **SHALL** contain exactly one [1..1] `@code="S"` (CONF:2226-18169).

c. This `legalAuthenticator` **SHALL** contain exactly one [1..1] `assignedEntity` (CONF:2226-19670).

i. This `assignedEntity` **MAY** contain zero or one [0..1] `representedOrganization` (CONF:2226-19671).

When the `legalAuthenticator` is a DSV, the `representedOrganization/id` is the DSV TIN.

1. The representedOrganization, if present, **SHALL** contain at least one [1..\*] **id** (CONF:2226-19672).
2. The representedOrganization, if present, **SHOULD** contain zero or one [0..1] **name** (CONF:2226-19673).

**Figure 21: legalAuthenticator Example**

```
<legalAuthenticator>
  <time value="20150312153222-0500"/>
  <signatureCode code="S"/>
  <assignedEntity>
    <id root="bc01a5d1-3a34-4286-82cc-43eb04c972a7"/>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" extension="223344"/>
      <name>Good Health Clinic</name>
    </representedOrganization>
  </assignedEntity>
</legalAuthenticator>
```

## 8.1.6 participant is Device

The generic participant with a participationType of 'DEV' (device) and an associatedEntity classCode of 'RGPR' (regulated product) is used to represent the CMS EHR Certification ID.

17. **MAY** contain zero or more [0..\*] **participant** (CONF:2226-18300) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="DEV"** device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:2226-18301).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:2226-18302).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode="RGPR"** regulated product (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2226-18303).
    - ii. This associatedEntity **MAY** contain zero or one [0..1] **id** (CONF:2226-18304) such that it

The CMS EHR Certification ID was formerly known as the ONC Certification Number.

1. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.3.2074.1"** CMS EHR Certification ID (CONF:2226-18305).  
Note: This value specifies that the id is the CMS EHR Certification ID.
- iii. This associatedEntity **SHALL** contain at least one [1..\*] **id** (CONF:2226-20954).
- iv. This associatedEntity **SHALL** contain exactly one [1..1] **code** (CONF:2226-18308).
  1. This code **SHALL** contain exactly one [1..1] **@code="129465004"** medical record, device (CONF:2226-18309).
  2. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:2226-21167).

**Figure 22: Device Participant Example**

```
<participant typeCode="DEV">
  <associatedEntity classCode="RGPR">
    <id root="2.16.840.1.113883.3.2074.1" extension="1a2b3c"/>
    <code code="129465004" displayName="medical record, device"
      codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED-CT"/>
  </associatedEntity>
</participant>
```

### 8.1.7 participant is Location

For CPC+ reporting, the generic participant with a participationType of 'LOC' (location) and an associatedEntity classCode of 'SDLOC' (service delivery location) representing the CPC+ Practice Site is required.

If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPC\_PLUS", then this location participant must be present. NOTE: The CPC+ CMS program name identifier code is yet to be determined.

18. **MAY** contain zero or one [0..1] **participant** (CONF:2233-711150) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:2233-711151).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:2233-711152).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:2233-711153).
    - ii. This associatedEntity **SHALL** contain exactly one [1..1] **id** (CONF:2233-711154).
      1. This id **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.3.249.5.1" CPC+ participant (CONF:2233-711155).  
Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.1) designates that the @extension must hold a CPC+ Participant ID.  
NOTE: The CPC+ Participant ID is yet to be determined.
      2. This id **SHALL** contain exactly one [1..1] @extension (CONF:2233-711156).  
Note: This is the CPC+ Participant ID assigned to the CPC+ participant. NOTE: The CPC+ Participant ID is yet to be determined.
    - iii. This associatedEntity **SHALL** contain exactly one [1..1] **code** (CONF:2233-711218).
      1. This code **SHALL** contain exactly one [1..1] @code="394730007" Healthcare Related Organization (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:2233-711219).
    - iv. This associatedEntity **SHALL** contain exactly one [1..1] **addr** (CONF:2233-711157).

**Figure 23: Location Participant Example**

```
<participant typeCode="LOC">
  <associatedEntity classCode="SDLOC">
    <id root="2.16.840.1.113883.3.249.5.1" extension="OK666333"
      assigningAuthorityName="CMS-CMMI"/>
    <code code="394730007"
      displayName="healthcare related organization"
      codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED-CT"/>
    <addr>
      <streetAddressLine>123 Healthcare St</streetAddressLine>
      <city>Norman</city>
      <state>OK</state>
      <postalCode>73019</postalCode>
    </addr>
  </associatedEntity>
</participant>
```

### 8.1.8 documentationOf

The aggregated data contained in a QRDA Category III report was provided by one or more providers. The documentationOf service event can contain identifiers for all of the (one or more) providers involved, using the serviceEvent/performer elements. A serviceEvent/performer element must be present for each performer reporting data to a quality organization.

19. SHALL contain exactly one [1..1] documentationOf (CONF: 2233-711214).

a. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:2226-18171).

- i. This serviceEvent SHALL contain exactly one [1..1] @classCode="PCPR" Care Provision (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6 STATIC) (CONF:2226-18172).
- ii. This serviceEvent SHALL contain at least one [1..\*] performer (CONF:2226-18173).

Note: All providers seeking credit for CMS program reporting are listed as performers.

1. Such performers SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90 STATIC) (CONF: 2226-18174).
2. Such performers MAY contain zero or one [0..1] time (CONF:2226-18175).
3. Such performers SHALL contain exactly one [1..1] assignedEntity (CONF:2226-18176).

The assignedEntity id/@root = '2.16.840.1.113883.4.6' coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI).

NPI is required except for the Group Practice Reporting Option (GPRO). For GPRO, id/@root='2.16.840.1.113883.4.6' is coupled with @nullFlavor="NA", and @extension shall be omitted.

- a. This assignedEntity SHALL contain exactly one [1..1] id (CONF:711167) such that it
  - i. MAY contain zero or one [0..1] @nullFlavor="NA" (CONF:2233-711249).

- Note: @nullFlavor is only present for PQRS GPRO reporting.
- ii. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.4.6"` National Provider ID (CONF:2233-711169).  
Note: This value specifies that the id is the provider's National Provider Identifier (NPI).
  - iii. **SHALL** contain exactly one [1..1] `@extension` (CONF:2233-711170).  
Note: This is the provider's NPI, it is only present when this is not PQRS GPRO reporting.
- b. This assignedEntity **SHALL** contain at least one [1..\*] `id` (CONF:2226-19474).
  - c. This assignedEntity **MAY** contain zero or more [0..\*] `telecom` (CONF:2226-18310).
  - d. This assignedEntity **SHALL** contain exactly one [1..1] `representedOrganization` (CONF:2226-18180).
    - i. This representedOrganization **SHALL** contain exactly one [1..1] `id` (CONF:2233-711168) such that it
      - 1. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.4.2"` Tax ID Number (CONF:2233-711171).  
Note: This value specifies that this id is the organization's Tax Identification Number (TIN).
      - 2. **SHALL** contain exactly one [1..1] `@extension` (CONF:2233-711172).  
Note: This is the organization's TIN.
    - ii. This representedOrganization **SHOULD** contain zero or more [0..\*] `name` (CONF:2226-19659).

**Figure 24: documentationOf Example**

```

<documentationOf>
  <serviceEvent classCode="PCPR">
    <!-- Care provision -->
    <effectiveTime>
      <low value="20170101"/>
      <high value="20171231"/>
    </effectiveTime>
    <!-- Multiple performers can be included,
        each with an NPI and TIN -->
    <performer typeCode="PRF">
      <time>
        <low value="20170101"/>
        <high value="20171231"/>
      </time>
      <assignedEntity>
        <!-- Provider NPI -->
        <id root="2.16.840.1.113883.4.6" extension="2589654740"/>
        <representedOrganization>
          <!-- Organization TIN -->
          <id root="2.16.840.1.113883.4.2" extension="990000999"/>
          <name>Good Health Clinic</name>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>

```

### 8.1.9 authorization

If the data is submitted through an intermediary such as a data submission vendor, this authorization represents that the eligible professional has given permission to release the report.

PQRS, MU and CPC+ all allow aggregation and submission by a DSV. If a DSV is used, then information about the DSV (e.g., TIN) is captured as the Legal Authenticator.

20. **MAY** contain zero or one [0..1] **authorization** (CONF:2226-18344).

a. The authorization, if present, **SHALL** contain exactly one [1..1] **consent** (CONF:2226-18360).

- i. This consent **SHALL** contain exactly one [1..1] **id** (CONF:2226-18361).  
Note: This is the identifier of the consent given by the EP.
- ii. This consent **SHALL** contain exactly one [1..1] **code** (CONF:2226-18363).
  - 1. This code **SHALL** contain exactly one [1..1] **@code="425691002"**  
Consent given for electronic record sharing (CONF:2226-19550).
  - 2. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:2226-21172).
- iii. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:2226-18364).
  - 1. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:2226-19551).

**Figure 25: Authorization Example**

```
<authorization>
  <consent>
    <id root="84613250-e75e-11e1-aff1-0800200c9a66"/>
    <code code="425691002"
      displayName="consent given for electronic record sharing"
      codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED-CT"/>
    <statusCode code="completed"/>
  </consent>
</authorization>
```

### 8.1.10 component

A QRDA Category III document contains a Reporting Parameters Section and a Measure section.

**21. SHALL contain exactly one [1..1] component** (CONF:2233-17217).

- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:2233-17235).
  - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:2233-17281) such that it
    - 1. **SHALL** contain exactly one [1..1] [QRDA Category III Reporting Parameters Section \(CMS EP\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.6:2016-03-01) (CONF:2233-711141).
  - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:2233-17283) such that it
    - 1. **SHALL** contain exactly one [1..1] [QRDA Category III Measure Section \(CMS EP\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.3:2016-03-01) (CONF:2233-711142).

**Figure 26: structuredBody Example**

```
<component>
  <structuredBody>
    <component>
      <!-- QRDA Category III Reporting Parameters Section (CMS EP) -->
      <section>
        ...
        <title>Reporting Parameters</title>
        ...
      </section>
    </component>
    <component>
      <!-- QRDA Category III Measure Section (CMS EP) -->
      <section>
        ...
        <title>Measure Section</title>
        ...
      </section>
    </component>
  </structuredBody>
</component>
```

## 8.2 Section-Level Templates

### 8.2.1 QRDA Category III Measure Section (CMS EP) (V2)

[section: templateId 2.16.840.1.113883.10.20.27.2.3:2016-03-01  
(open)]

**Table 13: QRDA Category III Measure Section (CMS EP) (V2) Contexts**

Contained By	Contains
<a href="#">QRDA Category III Report - CMS EP (V2)</a> (required)	<a href="#">Measure Reference and Results (CMS EP) (V2)</a>

This section references the measure(s) being reported. For each reported measure, this section includes entries for reporting various aggregate counts (e.g. number of patients in the measure's denominator). For continuous variable measures, this section includes entries for reporting the continuous variables. This section can also include entries not only for aggregate counts, but stratified aggregate counts (e.g. not just total number of patients in the denominator, but also the number of males in the denominator). Note that the QRDA-III standard allows for more than one measure within this section, but does not allow multiple occurrences of the same measure in a single QRDA-III instance.

For CPC+ reporting, this section must contain a Measure Reference and Results template for each measure that is being reported on by the CPC+ practice site.

1. Conforms to QRDA Category III Measure Section (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.2.1:2016-02-01).
  2. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711276) such that it
    - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.3" (CONF:2233-711277).
    - b. **SHALL** contain exactly one [1..1] @extension="2016-03-01" (CONF:2233-711286).
  3. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-12801) such that it
  4. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.2.2" (CONF:2233-12802).
- Note: Measure Section templateId
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-17284) such that it
    - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.2.1" (CONF:2233-17285).
 

Note: QRDA Category III Measure Section templateId
    - b. **SHALL** contain exactly one [1..1] @extension="2016-02-01" (CONF:2233-711285).
  6. **SHALL** contain exactly one [1..1] **code** (CONF:67-12798).
    - a. This code **SHALL** contain exactly one [1..1] @code="55186-1" Measure Section (CONF:67-19230).
    - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27012).
  7. **SHALL** contain exactly one [1..1] **title**="Measure Section" (CONF:67-12799).
  8. **SHALL** contain exactly one [1..1] **text** (CONF:67-12800).
  9. **SHALL** contain at least one [1..\*] **entry** (CONF:2233-711283) such that it
    - a. **SHALL** contain exactly one [1..1] [Measure Reference and Results \(CMS EP\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.17:2016-03-01) (CONF:2233-711284).

**Figure 27: QRDA-III Measure Section (CMS EP) Example**

```

<section>
  <!-- Measure Section template ID -->
  <templateId root="2.16.840.1.113883.10.20.24.2.2" />
  <!-- QRDA Category III Measure Section (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.2.1" extension="2016-02-01"/>
  <!-- QRDA Category III Measure Section (CMS EP) (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.24.2.3" extension="2016-03-01"/>
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Measure Section</title>
  <text>
    <table border="1" width="100%">
      <thead>
        <tr>
          <th>eMeasure Title</th>
          <th>Version neutral identifier</th>
          <th>Version specific identifier</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <td>Controlling High Blood Pressure</td>
          <td>abdc37cc-bac6-4156-9b91-d1be2c8b7268</td>
          <td>40280381-3d61-56a7-013e-66bc02da4dee</td>
        </tr>
      </tbody>
      <list>
        ...
      </list>
    </table>
  </text>
  <entry>
    <!-- Measure Reference and Results (CMS EP) -->
    <organizer classCode="CLUSTER" moodCode="EVN">
      ...
    </organizer>
  </entry>
</section>

```

## 8.2.2 QRDA Category III Reporting Parameters Section (CMS EP) (V2)

[section: templateId 2.16.840.1.113883.10.20.27.2.6:2016-03-01  
(open)]

**Table 14: QRDA Category III Reporting Parameters Section (CMS EP) (V2) Contexts**

Contained By	Contains
<a href="#">QRDA Category III Report - CMS EP (V2)</a> (required)	<a href="#">Reporting Parameters Act (CMS EP) (V2)</a>

The QRDA Category III Reporting Parameters Section provides information about the reporting time interval, and may contain other information that provides context for the data being reported. This template adds an optional Service Encounter template.

The QRDA Category III report contains data covering a single time period represented by the reporting parameters act. The reporting parameter dates are equivalent to the measurement period dates for the data being aggregated. For Program Year 2017, the reporting parameter

start date **SHALL** be "20170101" (i.e. 01/01/2017), and the reporting parameter end date **SHALL** be "20171231" (i.e., 12/31/2017).

1. Conforms to QRDA Category III Reporting Parameters Section template (2.16.840.1.113883.10.20.27.2.2).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711278) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.27.2.6"` (CONF:2233-711279).
  - b. **SHALL** contain exactly one [1..1] `@extension="2016-03-01"` (CONF:2233-711306).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:23-14611) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.17.2.1"` (CONF:23-14612).  
Note: Reporting Parameters Section templateId
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:77-18323) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.27.2.2"` (CONF:77-18324).  
Note: QRDA Category III Reporting Parameters Section templateId
5. **SHALL** contain exactly one [1..1] **code** (CONF:23-18191).
  - a. This code **SHALL** contain exactly one [1..1] `@code="55187-9"` Reporting Parameters (CONF:23-19229).
  - b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.1"` (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:23-26552).
6. **SHALL** contain exactly one [1..1] **title**="Reporting Parameters" (CONF:23-4142).
7. **SHALL** contain exactly one [1..1] **text** (CONF:23-4143).
8. **SHALL** contain exactly one [1..1] **entry** (CONF:2233-711303) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="DRIV"` Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-711304).
  - b. **SHALL** contain exactly one [1..1] [Reporting Parameters Act \(CMS EP\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.23:2016-03-01) (CONF:2233-711175).

**Figure 28: QRDA-III Reporting Parameters Section (CMS EP) Example**

```

<section>
  <!--Reporting Parameters Section template ID -->
  <templateId root="2.16.840.1.113883.10.20.17.2.1" />
  <!--QRDA Category III Reporting Parameters Section template ID-->
  <templateId root="2.16.840.1.113883.10.20.27.2.2" />
  <!--QRDA Category III Reporting Parameters (CMS EP) template ID-->
  <templateId root="2.16.840.1.113883.10.20.27.2.6" extension="2016-03-01"/>
  <code code="55187-9" codeSystem="2.16.840.1.113883.6.1" />
  <title>Reporting Parameters</title>
  <text>
    <list>
      <item>Reporting period: 01 Jan 2017 - 31 Dec 2017</item>
    </list>
  </text>
  <entry typeCode="DRIV">
    <!-- Reporting Parameters Act (CMS EP) -->
    <act classCode="ACT" moodCode="EVN">
      <!-- Reporting Parameters Act templateId (QRDA III) -->
      <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
      <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
      <code code="252116004" codeSystem="2.16.840.1.113883.6.96"
            displayName="Observation Parameters"/>
      <effectiveTime>
        <low value="20170101"/>
        <high value="20171231"/>
      </effectiveTime>
    </act>
  </entry>
</section>

```

## 8.3 Entry-Level Templates

### 8.3.1 Aggregate Count (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.24 (open)]

**Table 15: Aggregate Count (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (required)	
<a href="#">Reporting Stratum (CMS EP)</a> (required)	
<a href="#">Race Supplemental Data Element (CMS EP)</a> (required)	
<a href="#">Ethnicity Supplemental Data Element (CMS EP)</a> (required)	
<a href="#">Sex Supplemental Data Element (CMS EP) (V2)</a> (required)	
<a href="#">Payer Supplemental Data Element (CMS EP) (V2)</a> (required)	

The Aggregate Count captures the number of items aggregated. This template is contained in a parent template that describes the item. For CMS EP program reporting, the count must be sent even if the number is zero.

**Table 16: Aggregate Count (CMS EP) Constraints Overview**  
**observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.24']**

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		<a href="#">77-17563</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">77-17564</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1109-711262</a>	
@root	1..1	SHALL		<a href="#">1109-711263</a>	2.16.840.1.113883.10.20.27.3.24
templateId	1..1	SHALL		<a href="#">77-17565</a>	
@root	1..1	SHALL		<a href="#">77-18095</a>	2.16.840.1.113883.10.20.27.3.3
code	1..1	SHALL		<a href="#">77-17566</a>	
@code	1..1	SHALL		<a href="#">77-19508</a>	MSRAGG
@codeSystem	1..1	SHALL		<a href="#">77-21160</a>	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1109-711244</a>	
@code	1..1	SHALL		<a href="#">1109-711245</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	INT	<a href="#">1109-17567</a>	
@value	1..1	SHALL		<a href="#">1109-17568</a>	
methodCode	1..1	SHALL		<a href="#">77-19509</a>	
@code	1..1	SHALL		<a href="#">77-19510</a>	COUNT
@codeSystem	1..1	SHALL		<a href="#">77-21161</a>	urn:oid:2.16.840.1.113883.5.84 (ObservationMethod) = 2.16.840.1.113883.5.84

1. Conforms to Aggregate Count template (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.3).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:77-17563).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:77-17564).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1109-711262) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.27.3.24"** (CONF:1109-711263).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:77-17565) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.3" (CONF:77-18095).  
Note: Aggregate Count templateId (QRDA III)
- 6. **SHALL** contain exactly one [1..1] code (CONF:77-17566).
  - a. This code **SHALL** contain exactly one [1..1] @code="MSRAGG" rate aggregation (CONF:77-19508).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:77-21160).
- 7. **SHALL** contain exactly one [1..1] statusCode (CONF:1109-711244).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1109-711245).
- 8. **SHALL** contain exactly one [1..1] value with @xsi:type="INT" (CONF:77-17567).
  - a. This value **SHALL** contain exactly one [1..1] @value (CONF:77-17568).
- 9. **SHALL** contain exactly one [1..1] methodCode (CONF:77-19509).
  - a. This methodCode **SHALL** contain exactly one [1..1] @code="COUNT" Count (CONF:77-19510).
  - b. This methodCode **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.84" (CodeSystem: ObservationMethod urn:oid:2.16.840.1.113883.5.84) (CONF:77-21161).

**Figure 29: Aggregate Count (CMS EP) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Aggregate Count template ID (QRDA-III) -->
  <templateId root="2.16.840.1.113883.10.20.27.3.3"/>
  <!-- Aggregate Count (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.24"/>
  <code code="MSRAGG" displayName="rate aggregation"
    codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="INT" value="1000"/>
  <methodCode code="COUNT" displayName="Count"
    codeSystem="2.16.840.1.113883.5.84"
    codeSystemName="ObservationMethod"/>
</observation>
```

### 8.3.2 Continuous Variable Measure Value (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.26 (open) ]

**Table 17: Continuous Variable Measure Value (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP)</a> (optional)	
<a href="#">Reporting Stratum (CMS EP) (V2)</a> (optional)	

This observation represents the continuous variables found in quality measures that measure performance criteria by time spans, magnitude changes, etc. A continuous variable for a given patient might be the time spent waiting for a procedure. A continuous variable for a population

might be the mean wait time. The type of aggregation (e.g. mean, median) is represented in the observation/methodCode.

**Table 18: Continuous Variable Measure Value (CMS EP) Constraints Overview**  
 observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.26']

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		<a href="#">77-17569</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">77-17570</a>	urn:oid:2.16.840.1.113883.5.100 1 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1109-711264</a>	
@root	1..1	SHALL		<a href="#">1109-711265</a>	2.16.840.1.113883.10.20.27.3.26
templateId	1..1	SHALL		<a href="#">77-18096</a>	
@root	1..1	SHALL		<a href="#">77-18097</a>	2.16.840.1.113883.10.20.27.3.2
code	1..1	SHALL		<a href="#">77-17571</a>	
statusCode	1..1	SHALL		<a href="#">1109-711241</a>	
@code	1..1	SHALL		<a href="#">1109-711242</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL		<a href="#">77-17572</a>	
methodCode	1..1	SHALL		<a href="#">77-18242</a>	urn:oid:2.16.840.1.113883.1.11.2 0450 (ObservationMethodAggregate)
reference	1..1	SHALL		<a href="#">77-18243</a>	
externalObservation	1..1	SHALL		<a href="#">77-18244</a>	
id	1..1	SHALL		<a href="#">1109-711205</a>	

1. Conforms to Continuous Variable Measure Value template (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.2).
  2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:77-17569).
  3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:77-17570).
  4. **SHALL** contain exactly one [1..1] templateId (CONF:1109-711264) such that it
    - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.26" (CONF:1109-711265).
  5. **SHALL** contain exactly one [1..1] templateId (CONF:77-18096) such that it
    - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.2" (CONF:1109-18097).
- Note: Continuous Variable Measure Value templateId (QRDA III)

6. SHALL contain exactly one [1..1] **code** (CONF:77-17571).
  - a. This code element **SHALL** equal the code element in that eMeasure's measure observation definition (CONF:1109-711243).
7. SHALL contain exactly one [1..1] **statusCode** (CONF:1109-711241).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1109-711242).
8. SHALL contain exactly one [1..1] **value** (CONF:77-17572).
9. SHALL contain exactly one [1..1] **methodCode**, which **SHALL** be selected from ValueSet [ObservationMethodAggregate](#) urn:oid:2.16.840.1.113883.1.11.20450 **STATIC** (CONF:77-18242).
10. SHALL contain exactly one [1..1] **reference** (CONF:77-18243).
  - a. This reference **SHALL** contain exactly one [1..1] **externalObservation** (CONF:77-18244).
    - i. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:1109-711205).

Note: This is the id in the eMeasure's measure observation definition.

**Figure 30: Continuous Variable Measure Value (CMS EP) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Continuous Variable Measure Value template ID (QRDA-III) -->
  <templateId root="2.16.840.1.113883.10.20.27.3.2"/>
  <!-- Continuous Variable Measure Value (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.26"/>
  <code nullFlavor="OTH">
    <originalText>Time Difference</originalText>
  </code>
  <statusCode code="completed"/>
  <value xsi:type="PQ" value="55" unit="min"/>
  <methodCode code="MEDIAN" displayName="Median"
    codeSystem="2.16.840.1.113883.5.84"
    codeSystemName="ObservationMethod"/>
  <!-- reference to the relevant measure observation in the
       eMeasure -->
  <reference typeCode="REFR">
    <externalObservation classCode="OBS" moodCode="EVN">
      <id root="bcefe756-fb9f-4e46-aadc-d19de340b6b5"/>
    </externalObservation>
  </reference>
</observation>
```

### 8.3.3 Ethnicity Supplemental Data Element (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.22 (open) ]

**Table 19: Ethnicity Supplemental Data Element (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP) (V2)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a>

This observation represents whether the patient is Hispanic or not Hispanic and provides the number of patients in the population that report that ethnicity. For CMS EP programs, all codes

present in the value set must be reported, even if the count is zero. If the eMeasure is episode-based, the count will reflect the patient count rather than the episode count.

**Table 20: Ethnicity Supplemental Data Element (CMS EP) Constraints Overview**  
 observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.22']

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		<a href="#">77-18216</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">77-18217</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1109-711253</a>	
@root	1..1	SHALL		<a href="#">1109-711254</a>	2.16.840.1.113883.10.20.27.3.22
templateId	1..1	SHALL		<a href="#">77-18218</a>	
@root	1..1	SHALL		<a href="#">77-18219</a>	2.16.840.1.113883.10.20.27.3.7
code	1..1	SHALL		<a href="#">77-18220</a>	
@code	1..1	SHALL		<a href="#">77-18221</a>	364699009
@codeSystem	1..1	SHALL		<a href="#">77-21164</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">77-18118</a>	
@code	1..1	SHALL		<a href="#">77-18119</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">77-18222</a>	urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity)
entryRelationship	1..1	SHALL		<a href="#">77-18120</a>	
@typeCode	1..1	SHALL		<a href="#">77-18121</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">77-18122</a>	true
observation	1..1	SHALL		<a href="#">1109-711201</a>	Aggregate Count (CMS EP) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)

1. Conforms to Ethnicity Supplemental Data Element template (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.7).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:77-18216).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:77-18217).
4. **SHALL** contain exactly one [1..1] templateId (CONF:1109-711253) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.22" (CONF:1109-711254).
- 5. **SHALL** contain exactly one [1..1] **templateId** (CONF:77-18218) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.7" (CONF:77-18219).  
Note: Ethnicity Supplemental Data Element templateId (QRDA III)
- 6. **SHALL** contain exactly one [1..1] **code** (CONF:77-18220).
  - a. This code **SHALL** contain exactly one [1..1] @code="364699009" Ethnic Group (CONF:77-18221).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:77-21164).
- 7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1109-18118).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1109-18119).
- 8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet **Ethnicity** urn:oid:2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:77-18222).
- 9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:77-18120) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:77-18121).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:77-18122).
  - a. **SHALL** contain exactly one [1..1] **Aggregate Count (CMS EP)** (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:1109-711201).

**Figure 31: Ethnicity Supplemental Data Element (CMS EP) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Ethnicity Supplemental Data Element template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.7"/>
  <!-- Ethnicity Supplemental Data Element (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.22"/>
  <code code="364699009" displayName="Ethnic Group"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED-CT"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
        code="2186-5" displayName="Not Hispanic or Latino"
        codeSystem="2.16.840.1.113883.6.238"
        codeSystemName="Race & Ethnicity - CDC"/>
  <!-- Aggregate Count (CMS EP) -->
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>

```

### 8.3.4 Measure Data (CMS EP) (V2)

[observation: templateId 2.16.840.1.113883.10.20.27.3.16:2016-03-01 (open)]

**Table 21: Measure Data (CMS EP) (V2) Contexts**

Contained By	Contains
<a href="#">Measure Reference and Results (CMS EP) (V2)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a> <a href="#">Continuous Variable Measure Value (CMS EP)</a> <a href="#">Ethnicity Supplemental Data Element (CMS EP)</a> <a href="#">Payer Supplemental Data Element (CMS EP) (V2)</a> <a href="#">Race Supplemental Data Element (CMS EP)</a> <a href="#">Reporting Stratum (CMS EP)</a> <a href="#">Sex Supplemental Data Element (CMS EP) (V2)</a>

This observation asserts a population into which a subject falls and provides the number of patients in the population. It may also contain reporting stratum, supplemental data element counts, and continuous variables that are relevant to the population. The measure data entry must reference a unique measure population ID.

Populations that are used in eMeasures can be complicated. The simple case has one each of initial population (IPOP), numerator, and denominator, along with denominator exclusions and denominator exceptions. It is also possible to have eMeasures with multiple population groups (a population group is a set of IPP, numerator, denominator, etc.), and eMeasures with multiple denominators and numerators (for example, an eMeasure with 3 denominators and 2 numerators will require a QRDA Category III report with 6 sets of data). QRDA Category III reports were designed to allow the representation of data sets that map to all of these types of multiple populations.

A measure may not be submitted more than once in the same file. The same population may not be submitted more than once in the same measure. Uniqueness of a measure is determined based on the UUID provided for it in the associated reference/externalDocument/id. This id **SHALL** equal the version specific identifier that comes from the applicable HQMF file.

Uniqueness of a population is determined based on the UUID provided for it in the associated reference/externalObservation/id. This id **SHALL** equal the respective population identifier that comes from the applicable HQMF file.

**Table 22: Measure Data (CMS EP) (V2) Constraints Overview**  
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.16']  
[templateId/@extension="2016-03-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		<a href="#">2226-17615</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">2226-17616</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">2233-711266</a>	
@root	1..1	SHALL		<a href="#">2233-711267</a>	2.16.840.1.113883.10.20.27.3.16

@extension	1..1	SHALL		<a href="#">2233-711287</a>	2016-03-01
templateId	1..1	SHALL		<a href="#">2226-17912</a>	
@root	1..1	SHALL		<a href="#">2226-17913</a>	2.16.840.1.113883.10.20.27.3.5
@extension	1..1	SHALL		<a href="#">2226-21161</a>	2016-02-01
code	1..1	SHALL		<a href="#">2226-17617</a>	
@code	1..1	SHALL		<a href="#">2226-18198</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">2226-21164</a>	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">2226-18199</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus)
@code	1..1	SHALL		<a href="#">2226-19555</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">2226-17618</a>	
@code	1..1	SHALL		<a href="#">2226-21162</a>	urn:oid:2.16.840.1.113883.1.11.20476 (PopulationInclusionObservationType)
entryRelationship	1..1	SHALL		<a href="#">2226-17619</a>	
@typeCode	1..1	SHALL		<a href="#">2226-17910</a>	SUBJ
@inversionInd	1..1	SHALL		<a href="#">2226-17911</a>	true
observation	1..1	SHALL		<a href="#">2233-711198</a>	Aggregate Count (CMS EP) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)
entryRelationship	0..*	MAY		<a href="#">2226-17918</a>	
@typeCode	1..1	SHALL		<a href="#">2226-17919</a>	COMP
observation	1..1	SHALL		<a href="#">2233-711180</a>	Reporting Stratum (CMS EP) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.20)
entryRelationship	1..*	SHALL		<a href="#">2233-711190</a>	
@typeCode	1..1	SHALL		<a href="#">2233-18137</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">2233-711181</a>	Sex Supplemental Data Element (CMS EP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.21: 2016-03-01)
entryRelationship	1..*	SHALL		<a href="#">2233-711191</a>	
@typeCode	1..1	SHALL		<a href="#">2233-18144</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">2233-711182</a>	Ethnicity Supplemental Data Element (CMS EP) (identifier:

					<a href="#">urn:oid:2.16.840.1.113883.10.20.27.3.22)</a>
entryRelationship	1..*	SHALL		<a href="#">2233-711192</a>	
@typeCode	1..1	SHALL		<a href="#">2233-18145</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">2233-711183</a>	Race Supplemental Data Element (CMS EP) (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.27.3.19)</a>
entryRelationship	1..*	SHALL		<a href="#">2233-711193</a>	
@typeCode	1..1	SHALL		<a href="#">2233-18146</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">2233-711184</a>	Payer Supplemental Data Element (CMS EP) (V2) (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-03-01)</a>
entryRelationship	0..*	MAY		<a href="#">2226-18143</a>	
@typeCode	1..1	SHALL		<a href="#">2226-18148</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">2233-711212</a>	Continuous Variable Measure Value (CMS EP) (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.27.3.26)</a>
reference	1..1	SHALL		<a href="#">2226-18239</a>	
externalObservation	1..1	SHALL		<a href="#">2226-18240</a>	
id	1..1	SHALL		<a href="#">2226-18241</a>	

1. Conforms to Measure Data (V2) template (identifier:  
[urn:hl7ii:2.16.840.1.113883.10.20.27.3.5:2016-02-01](#)).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:2226-17615).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:2226-17616).
4. **SHALL** contain exactly one [1..1] templateId (CONF:2233-711266) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.16" (CONF:2233-711267).
  - b. **SHALL** contain exactly one [1..1] @extension="2016-03-01" (CONF:2233-711287).
5. **SHALL** contain exactly one [1..1] templateId (CONF:2226-17912) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.5" (CONF:2226-17913).  
Note: Measure Data templateId (QRDA III)
  - b. **SHALL** contain exactly one [1..1] @extension="2016-02-01" (CONF:2233-711288).

6. **SHALL** contain exactly one [1..1] **code** (CONF:2226-17617).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:2226-18198).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:2226-21164).
7. **SHALL** contain exactly one [1..1] **statusCode** (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2226-18199).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:2226-19555).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:2226-17618).
  - a. This value **SHALL** contain exactly one [1..1] @code, which **SHOULD** be selected from ValueSet [PopulationInclusionObservationType](#) urn:oid:2.16.840.1.113883.1.11.20476 **DYNAMIC** (CONF:2226-21162).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:2226-17619) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CONF:2226-17910).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:2226-17911).
  - c. **SHALL** contain exactly one [1..1] [Aggregate Count \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711198).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:2226-17918) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CONF:2226-17919).
  - b. **SHALL** contain exactly one [1..1] [Reporting Stratum \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.20) (CONF:2233-711180).
11. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:2233-711190) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18137).
  - b. **SHALL** contain exactly one [1..1] [Sex Supplemental Data Element \(CMS EP\) \(V2\)](#) (identifier: urn:h17ii:2.16.840.1.113883.10.20.27.3.21:2016-03-01) (CONF:2233-711181).
12. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:2233-711191) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18144).
  - b. **SHALL** contain exactly one [1..1] [Ethnicity Supplemental Data Element \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.22) (CONF:2233-711182).
13. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:2233-711192) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18145).
  - b. **SHALL** contain exactly one [1..1] [Race Supplemental Data Element \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.19) (CONF:2233-711183).
14. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:2233-711193) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18146).

- b. **SHALL** contain exactly one [1..1] [Payer Supplemental Data Element \(CMS EP\) \(v2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.18:2016-03-01) (CONF:2233-711184).

If observation/value/@code="MSRPOPL" then the following entryRelationship SHALL be present.

15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:2233-18143) such that it
- SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18148).
  - SHALL** contain exactly one [1..1] [continuous Variable Measure Value \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26) (CONF:2233-711212).
16. **SHALL** contain exactly one [1..1] **reference** (CONF:2233-18239) such that it
- SHALL** contain exactly one [1..1] **externalObservation** (CONF:2233-18240).
    - This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:2233-711233).  
Note: This is the id defined in the corresponding eMeasure population criteria section.

DRAFT

**Figure 32: Measure Data (CMS EP) (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Measure Data template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.5" extension="2016-02-01"/>
  <!-- Measure Data (CMS EP) (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.16" extension="2016-03-01"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
        displayName="Assertion" codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="IPOP"
        codeSystem="2.16.840.1.113883.5.4"
        displayName="initial population"
        codeSystemName="ActCode"/>
  <!-- Aggregate Count (CMS EP) -->
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Sex Supplemental Data Element (CMS EP) (V2) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Ethnicity Supplemental Data Element (CMS EP) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Race Supplemental Data Element (CMS EP) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- Payer Supplemental Data Element (CMS EP) (V2) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <!-- reference to the relevant population in the eMeasure -->
  <reference typeCode="REFR">
    <externalObservation classCode="OBS" moodCode="EVN">
      <id root="670DFFA3-F2EE-4CF7-9083-743F2C1D7D50"/>
      <!-- This is the population ID in the eMeasure.
          In this case, the IPOP -->
    </externalObservation>
  </reference>
</observation>
```

### 8.3.5 Measure Reference and Results (CMS EP) (V2)

[organizer: templateId 2.16.840.1.113883.10.20.27.3.17:2016-03-01  
 (open) ]

**Table 23: Measure Reference and Results (CMS EP) (V2) Contexts**

Contained By	Contains
<a href="#">QRDA Category III Measure Section (CMS EP) (V2) (required)</a>	<a href="#">Measure Data (CMS EP) (V2)</a> <a href="#">Performance Rate for Proportion Measure (CMS EP)</a>

This template defines the way that a measure should be referenced. Measures are referenced through `externalAct` reference to an `externalDocument`. The `externalDocument/ids` and version numbers are used to reference the measure. Component entries can be used to report various rates, aggregate counts (e.g., number of patients in the measure's denominator); stratified aggregate counts (e.g., number of male patients in the measure's denominator); or continuous variables from continuous variable measures.

**Table 24: Measure Reference and Results (CMS EP) Constraints Overview**

organizer[templateId/@root = '2.16.840.1.113883.10.20.27.3.17']  
 [templateId/@extension="2016-03-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		<a href="#">2226-17887</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">2226-17888</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">2233-711268</a>	
@root	1..1	SHALL		<a href="#">2233-711269</a>	2.16.840.1.113883.10.20.27.3.17
@extension	1..1	SHALL		<a href="#">2233-711297</a>	2016-03-01
templateId	1..1	SHALL		<a href="#">67-19532</a>	
@root	1..1	SHALL		<a href="#">67-19533</a>	2.16.840.1.113883.10.20.24.3.98
templateId	1..1	SHALL		<a href="#">2226-17908</a>	
@root	1..1	SHALL		<a href="#">2226-17909</a>	2.16.840.1.113883.10.20.27.3.1
@extension	1..1	SHALL		<a href="#">2226-21170</a>	2016-02-01
statusCode	1..1	SHALL		<a href="#">2226-17889</a>	
@code	1..1	SHALL		<a href="#">2226-19552</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
reference	1..1	SHALL		<a href="#">2226-17890</a>	
@typeCode	1..1	SHALL		<a href="#">2226-17891</a>	REFR
	1..1	SHALL		<a href="#">2226-17892</a>	urn:oid:2.16.840.1.113883.5.6

externalDocument					(HL7ActClass)
@classCode	1..1	SHALL		<a href="#">2226-19548</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		<a href="#">2226-18192</a>	
@root	1..1	SHALL		<a href="#">2226-18193</a>	2.16.840.1.113883.4.738
@extension	1..1	SHALL		<a href="#">2233-711289</a>	
code	0..1	SHOULD		<a href="#">2226-17896</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
@code	1..1	SHALL		<a href="#">2226-19553</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 57024-2
text	0..1	SHOULD		<a href="#">2226-17897</a>	
component	0..*	MAY		<a href="#">2233-17903</a>	
observation	1..1	SHALL		<a href="#">2233-711213</a>	<a href="#">Performance Rate for Proportion Measure (CMS EP) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.25)</a>
component	1..*	SHALL		<a href="#">2233-18425</a>	
observation	1..1	SHALL		<a href="#">2233-711296</a>	<a href="#">Measure Data (CMS EP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.16:2016-03-01)</a>

1. Conforms to Measure Reference and Results (V2) template (identifier: [urn:hl7ii:2.16.840.1.113883.10.20.27.3.1:2016-02-01](#)).
2. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass [urn:oid:2.16.840.1.113883.5.6 STATIC](#)) (CONF:2226-17887).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood [urn:oid:2.16.840.1.113883.5.1001 STATIC](#)) (CONF:2226-17888).
4. **SHALL** contain exactly one [1..1] templateId (CONF:2233-711268) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.17" (CONF:2233-711269).
  - b. **SHALL** contain exactly one [1..1] @extension="2016-03-01" (CONF:2233-711297).
5. **SHALL** contain exactly one [1..1] templateId (CONF:67-19532) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.98" (CONF:67-19533).  
Note: Measure Reference templateId (QRDA III)
6. **SHALL** contain exactly one [1..1] templateId (CONF:2226-17908) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.1" (CONF:2226-17909).  
Note: Measure Reference and Results templateId (QRDA III)
  - b. **SHALL** contain exactly one [1..1] @extension="2016-02-01" (CONF:2226-21170).

7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:2226-17889).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:2226-19552).
8. **SHALL** contain exactly one [1..1] **reference** (CONF:2226-17890) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="REFR"` (CONF:2226-17891).
  - b. **SHALL** contain exactly one [1..1] **externalDocument** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2226-17892).
    - i. This **externalDocument** **SHALL** contain exactly one [1..1] `@classCode="DOC"` Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:2226-19548).
    - ii. This **externalDocument** **SHALL** contain exactly one [1..1] **id** (CONF:2226-18192) such that it
      1. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.4.738"` (CONF:2226-18193). Note: This OID indicates that the @extension contains the version specific identifier for the eMeasure
      2. **SHALL** contain exactly one [1..1] `@extension` (CONF:2233-711289). Note: This @extension SHALL equal the version specific identifier for eMeasure (i.e. QualityMeasureDocument/id)
    - iii. This **externalDocument** **SHOULD** contain zero or one [0..1] **code** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:2226-17896).
      1. The code, if present, **SHALL** contain exactly one [1..1] `@code="57024-2"` Health Quality Measure Document (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2226-19553).

This text is the title and optionally a brief description of the Quality Measure.

- iv. This **externalDocument** **SHOULD** contain zero or one [0..1] **text** (CONF:2226-17897).
9. **MAY** contain zero or more [0..\*] **component** (CONF:2233-17903) such that it
  - a. **SHALL** contain exactly one [1..1] [Performance Rate for Proportion Measure \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.25) (CONF:2233-711213).
10. **SHALL** contain at least one [1..\*] **component** (CONF:2233-18425) such that it
  - a. **SHALL** contain exactly one [1..1] [Measure Data \(CMS EP\) \(V2\)](#) (identifier: urn:hl7:2.16.840.1.113883.10.20.27.3.16:2016-03-01) (CONF:2233-711296).

**Figure 33: Measure Reference and Results (CMS EP) (V2) Example**

```

<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- Measure Reference template ID -->
  <templateId root="2.16.840.1.113883.10.20.24.3.98" />
  <!-- Measure Reference and Results template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.1" extension="2016-02-01"/>
  <!-- Measure Reference and Results (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.17" extension="2016-03-01"/>
  <statusCode code="completed" />
  <reference typeCode="REFR">
    <externalDocument classCode="DOC" moodCode="EVN">
      <!-- This is the version-specific identifier for eMeasure -->
      <id root="2.16.840.1.113883.4.738"
          extension="40280381-3d61-56a7-013e-66a5a5834990"/>
      <code code="57024-2"
            displayName="Health Quality Measure Document"
            codeSystemName="LOINC"
            codeSystem="2.16.840.1.113883.6.1" />
      <!-- This is the title of the eMeasure -->
      <text>Breast Cancer Screening</text>
    </externalDocument>
  </reference>
  <component>
    <!-- Performance Rate for Proportion Measure (CMS EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </component>
</organizer>

```

### 8.3.6 Payer Supplemental Data Element (CMS EP) (V2)

[observation: templateId 2.16.840.1.113883.10.20.27.3.18:2016-03-01 (open)]

**Table 25: Payer Supplemental Data Element (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP) (V2)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a>

This observation represents the policy or program providing the coverage for the patients being reported on and provides the number of patients in the population that are covered by that policy or program. When a patient has multiple payers, only count the primary payer (usually this is the first payer listed). For CMS EP programs, all codes present in the value set must be reported, even if the count is zero. If an eMeasure is episode-based, the count will reflect the patient count rather than the episode count.

Individual payer codes from the Public Health Data Standards Consortium Source of Payment Typology (2.16.840.1.113883.3.221.5) have been grouped for QRDA-III aggregate reports.

**Table 26: Payer Supplemental Data Element (CMS EP) (V2) Constraints Overview**  
 observation[templateId/@root='2.16.840.1.113883.10.20.27.3.18']  
 [templateId/@extension="2016-03-01"]

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		<a href="#">2226-21155</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">2226-21156</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">2233-711270</a>	
@root	1..1	SHALL		<a href="#">2233-711271</a>	2.16.840.1.113883.10.20.27.3.18
@extension	1..1	SHALL		<a href="#">2233-711299</a>	2016-03-01
templateId	1..1	SHALL		<a href="#">2226-18237</a>	
@root	1..1	SHALL		<a href="#">2226-18238</a>	2.16.840.1.113883.10.20.27.3.9
@extension	1..1	SHALL		<a href="#">2226-21157</a>	2016-02-01
id	1..*	SHALL		<a href="#">2233-12564</a>	
code	1..1	SHALL		<a href="#">2226-21158</a>	
@code	1..1	SHALL		<a href="#">2226-21159</a>	48768-6
@codeSystem	1..1	SHALL		<a href="#">2226-21165</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">2226-18106</a>	
@code	1..1	SHALL		<a href="#">2226-18107</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">2233-711196</a>	
translation	1..1	SHALL		<a href="#">2233-711230</a>	
@code	1..1	SHALL		<a href="#">2233-711231</a>	urn:oid:2.16.840.1.113883.3.249. 14.102 (CMS Payer Groupings)
@nullFlavor	1..1	SHALL		<a href="#">2233-711229</a>	OTH
entryRelationship	1..1	SHALL		<a href="#">2226-18108</a>	
@typeCode	1..1	SHALL		<a href="#">2226-18109</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">2226-18110</a>	true
observation	1..1	SHALL		<a href="#">2233-711199</a>	<a href="#">Aggregate Count (CMS EP)</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.27.3.24</a>

1. Conforms to Payer Supplemental Data Element (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.27.3.9:2016-02-01).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:2226-21155).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:2226-21156).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:2233-711270) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.18" (CONF:2233-711271).
  - b. **SHALL** contain exactly one [1..1] @extension="2016-03-01" (CONF:2233-711299).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:2226-18237) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.9" (CONF:2226-18238).  
Note: Payer Supplemental Data Element templateId (QRDA III)
  - b. **SHALL** contain exactly one [1..1] @extension="2016-02-01" (CONF:2226-21157).
6. **SHALL** contain at least one [1..\*] **id** (CONF:2233-12564).
7. **SHALL** contain exactly one [1..1] **code** (CONF:2226-21158).
  - a. This code **SHALL** contain exactly one [1..1] @code="48768-6" Payment source (CONF:2226-21159).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:2226-21165).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:2226-18106).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2226-18107).
9. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:2233-711196).
  - a. This value **SHALL** contain exactly one [1..1] **translation** (CONF:2233-711230).
    - i. This translation **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [CMS Payer Groupings](#) urn:oid:2.16.840.1.113883.3.249.14.102 (CONF:2233-711231).
    - b. This value **SHALL** contain exactly one [1..1] @nullFlavor="OTH" (CONF:2233-711229).
10. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:2226-18108) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2226-18109).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:2226-18110).
    - a. **SHALL** contain exactly one [1..1] [Aggregate Count \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711199).

**Table 27: CMS Payer Groupings**

Value Set: CMS Payer Groupings 2.16.840.1.113883.3.249.14.102

Values specifying the primary payer for CMS QRDA-III report submissions that groups codes from the Public Health Data Standards Consortium Source of Payment Typology (2.16.840.1.113883.3.221.5). Codes are grouped as follows:

Payer Grouping A: Medicare (1)

Payer Grouping B: Medicaid (2)

Payer Grouping C: Private Health Insurance (5), Blue Cross/Blue Shield (6)

Payer Grouping D: Other Government (3), Department of Corrections (4), Managed Care Unspecified (7), No Payment Listed (8), Miscellaneous/Other (9)

Code	Code System	Code System OID	Print Name
A	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Medicare
B	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Medicaid
C	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Private Health Insurance
D	CMS Clinical Codes	2.16.840.1.113883.3.249.12	Other

**Figure 34: Payer Supplemental Data Element (CMS EP) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Payer Supplemental Data Element (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.9" extension="2016-02-01"/>
  <!-- Payer Supplemental Data Element (CMS EP) template ID (V2)-->
  <templateId root="2.16.840.1.113883.10.20.27.3.18" extension="2016-03-01"/>
  <id nullFlavor="NA"/>
  <code code="48768-6" displayName="Payment source"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="SNOMED-CT"/>
  <statusCode code="completed"/>
  <!-- Parent template requires "SHALL be drawn from Value Set: PHDSC Source of Payment Typology 2.16.840.1.114222.4.11.3591 DYNAMIC"-->
  <!-- CMS Prefers to group the insurances more broadly than the Source of Payment Typology allows. Therefore, nullFlavor of OTH will be used and CMS local codes used to identify groupings-->
  <value xsi:type="CD" nullFlavor="OTH">
    <translation code="A" displayName="Medicare"
                codeSystem="2.16.840.1.113883.3.249.12"
                codeSystemName="CMS Clinical Codes"/>
  </value>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count (CMS EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
      </observation>
    </entryRelationship>
  </observation>

```

### 8.3.7 Performance Rate for Proportion Measure (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.25 (open) ]

**Table 28: Performance Rate for Proportion Measure (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Reference and Results (CMS EP)</a> (optional)	

This template is only used with proportion measures. The performance rate is a ratio of patients that meet the numerator criteria divided by patients in the denominator (after accounting for exclusions and exceptions). Performance Rate is calculated using this formula: Performance Rate = (NUMER – NUMER EXCL) / (DENOM – DENOM EXCL – DENOM EXCEP).

Based on the Performance Rate calculation, a Performance Rate must not exceed 1 (e.g., 100, 1.5), since a value of 1 indicates 100%. The Performance Rate value that is provided in a QRDA Category III file should not be the Performance Rate times 100, but instead should be the value obtained from the calculation of NUMER/(DENOM– DENOM EXCL – DENOM EXCEP), rounded to the nearest millionth; refer to the rounding rules listed later in this section. In addition, if the expression (DENOM – DENOM EXCL– DENOM EXCEP) results in a null or a value of 0, then a nullFlavor of "NA" should be provided for the Performance Rate. Finally, if the expression (DENOM– DENOM EXCL – DENOM EXCEP) results in a value greater than or equal to 1 and a Numerator count equal to 0 is provided, then a Performance Rate of "0" should be submitted.

The following rounding rules must be used when submitting performance rates:

- For a calculated performance rate that has >= 7 digits after the decimal point, round the decimal number to the millionth.
- For a calculated performance rate that has <= 6 digits after the decimal point, rounding is not permitted for the performance rate.

**Table 29: Performance Rate for Proportion Measure (CMS EP) Constraints Overview**  
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.25']

XPath	Card.	Verb	Data Type	CONF#	Value
@classCode	1..1	SHALL		<a href="#">77-18395</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">77-18396</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1109-711255</a>	
@root	1..1	SHALL		<a href="#">1109-711256</a>	2.16.840.1.113883.10.20.27.3.25
templateId	1..1	SHALL		<a href="#">77-19649</a>	
@root	1..1	SHALL		<a href="#">77-19650</a>	2.16.840.1.113883.10.20.27.3.14
code	1..1	SHALL		<a href="#">77-18397</a>	
@code	1..1	SHALL		<a href="#">77-18398</a>	72510-1
@codeSystem	1..1	SHALL		<a href="#">77-21170</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1

statusCode	1..1	SHALL		<a href="#">77-18421</a>	
@code	1..1	SHALL		<a href="#">77-18422</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	REAL	<a href="#">77-18399</a>	
reference	1..1	SHALL		<a href="#">1109-711203</a>	
@typeCode	1..1	SHALL		<a href="#">1109-19652</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
externalObservation	1..1	SHALL		<a href="#">77-19653</a>	
@classCode	1..1	SHALL		<a href="#">77-19654</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
id	1..1	SHALL		<a href="#">77-19655</a>	
@root	1..1	SHALL		<a href="#">77-19656</a>	
code	1..1	SHALL		<a href="#">77-19657</a>	
@code	1..1	SHALL		<a href="#">77-19658</a>	NUMER
@codeSystem	1..1	SHALL		<a href="#">77-21165</a>	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4

1. Conforms to Performance Rate for Proportion Measure template (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.14).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:77-18395).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:77-18396).
4. SHALL contain exactly one [1..1] templateId (CONF:1109-711255) such that it
  - a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.25" (CONF:1109-711256).
5. SHALL contain exactly one [1..1] templateId (CONF:77-19649) such that it
  - a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.14" (CONF:77-19650).  
Note: Performance Rate for Proportion Measure templated (QRDA III)
6. SHALL contain exactly one [1..1] code (CONF:77-18397).
  - a. This code SHALL contain exactly one [1..1] @code="72510-1" Performance Rate (CONF:77-18398).
  - b. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:77-21170).
7. SHALL contain exactly one [1..1] statusCode (CONF:77-18421).
  - a. This statusCode SHALL contain exactly one [1..1] @code="completed" completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:77-18422).

8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="REAL" (CONF:1109-18399).
  - a. The value, if present, **SHALL** be greater than or equal to 0 and less than or equal to 1 (CONF:1109-711294).
  - b. The value, if present, **SHALL** contain no more than 6 digits to the right of the decimal (CONF:1109-711295).

This is a reference to the specific Numerator included in the calculation.

9. **SHALL** contain exactly one [1..1] **reference** (CONF:1109-711203).
  - a. This reference **SHALL** contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1109-19652).
  - b. This reference **SHALL** contain exactly one [1..1] **externalObservation** (CONF:1109-19653).
    - i. This externalObservation **SHALL** contain exactly one [1..1] @classCode (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:77-19654).

The externalObservationID contains the ID of the numerator in the referenced eMeasure.

- ii. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:77-19655).
  1. This id **SHALL** contain exactly one [1..1] @root (CONF:77-19656).  
Note: This is the ID of the numerator in the referenced eMeasure.
- iii. This externalObservation **SHALL** contain exactly one [1..1] **code** (CONF:77-19657).
  1. This code **SHALL** contain exactly one [1..1] @code="NUMER" Numerator (CONF:77-19658).
  2. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:77-21165).

**Figure 35: Performance Rate for Proportion Measure (CMS EP) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Performance Rate for Proportion Measure template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.14"/>
  <!-- Performance Rate for Proportion Measure (CMS EP)
      template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.25"/>
  <code code="72510-1" codeSystem="2.16.840.1.113883.6.1"
        displayName="Performance Rate"
        codeSystemName="2.16.840.1.113883.6.1"/>
  <statusCode code="completed"/>
  <value xsi:type="REAL" value="0.833"/>
  <!-- This is the reference to the Numerator in the eMeasure -->
  <reference typeCode="REFR">
    <externalObservation classCode="OBS" moodCode="EVN">
      <!-- The externalObservationID contains the ID of the
          numerator in the referenced eMeasure. -->
      <id root="17D7EEFE-C12C-4020-BA68-545A3FFC3598"/>
      <code code="NUMER" displayName="Numerator"
            codeSystem="2.16.840.1.113883.5.4"
            codeSystemName="ActCode"/>
    </externalObservation>
  </reference>
</observation>

```

### 8.3.8 Race Supplemental Data Element (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.19 (open) ]

**Table 30: Race Supplemental Data Element (CMS EP) Contexts**

Contained By	Contains
Measure Data (CMS EP) (V2) (required)	Aggregate Count (CMS EP)

This observation represents the race category reported by patients and provides the number of patients in the population that report that race category. For CMS EP programs, all codes present in the value set must be reported, even if the count is zero. If there are multiple race values reported for a patient, count as 'Other Race' value. For episode-based eMeasures, the count will reflect the patient count rather than the episode count.

**Table 31: Race Supplemental Data Element (CMS EP) Constraints Overview**

observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.19']

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@classCode	1..1	SHALL		<a href="#">77-18223</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">77-18224</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1109-711257</a>	
@root	1..1	SHALL		<a href="#">1109-711258</a>	2.16.840.1.113883.10.20.27.3.19

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
templateId	1..1	SHALL		<a href="#">77-18225</a>	
@root	1..1	SHALL		<a href="#">77-18226</a>	2.16.840.1.113883.10.20.27.3.8
code	1..1	SHALL		<a href="#">77-18227</a>	
@code	1..1	SHALL		<a href="#">77-18228</a>	103579009
@codeSystem	1..1	SHALL		<a href="#">77-21167</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">77-18112</a>	
@code	1..1	SHALL		<a href="#">77-18113</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">77-18229</a>	urn:oid:2.16.840.1.114222.4.11.836 (Race)
entryRelationship	1..1	SHALL		<a href="#">77-18114</a>	
@typeCode	1..1	SHALL		<a href="#">77-18115</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">77-18116</a>	true
observation	1..1	SHALL		<a href="#">1109-711200</a>	<a href="#">Aggregate Count (CMS EP) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24</a>

1. Conforms to Race Supplemental Data Element template  
(2.16.840.1.113883.10.20.27.3.8).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass  
urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:77-18223).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood  
urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:77-18224).
4. **SHALL** contain exactly one [1..1] templateId (CONF:1109-711257) such that it
  - a. **SHALL** contain exactly one [1..1]  
@root="2.16.840.1.113883.10.20.27.3.19" (CONF:1109-711258).
5. **SHALL** contain exactly one [1..1] templateId (CONF:77-18225) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.8" (CONF:77-18226)
 

Note: Race Supplemental Data Element templateId (QRDA III)
6. **SHALL** contain exactly one [1..1] code (CONF:77-18227).
  - a. This code **SHALL** contain exactly one [1..1] @code="103579009" Race (CONF:77-18228).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT  
urn:oid:2.16.840.1.113883.6.96) (CONF:77-21167).
7. **SHALL** contain exactly one [1..1] statusCode (CONF:77-18112).

- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:77-18113).
- 8. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Race](#) urn:oid:2.16.840.1.114222.4.11.836 **DYNAMIC** (CONF:77-18229).
- 9. **SHALL** contain exactly one [1..1] entryRelationship (CONF:77-18114) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:77-18115).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:77-18116).
  - c. **SHALL** contain exactly one [1..1] [Aggregate Count \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:1109-711200).

**Figure 36: Race Supplemental Data Element (CMS EP) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Race Supplemental Data Element template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.8"/>
  <!-- Race Supplemental Data Element (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.19"/>
  <code code="103579009"
    displayName="Race"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED-CT"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="2054-5"
    displayName="Black or African American"
    codeSystem="2.16.840.1.113883.6.238"
    codeSystemName="Race & Ethnicity - CDC"/>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count (CMS EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>

```

### 8.3.9 Reporting Parameters Act (CMS EP) (V2)

[act: templateId 2.16.840.1.113883.10.20.27.3.23:2016-03-01 (open) ]

**Table 32: Reporting Parameters Act (CMS EP) Contexts**

Contained By	Contains
<a href="#">QRDA Category III Reporting Parameters Section (CMS EP) (V2)</a> (required)	

This template provides information about the reporting time interval, and provides context for the patient data being reported to the CMS EP program.

**Table 33: Reporting Parameters Act (CMS EP) (V2) Constraints Overview**

act[templateId/@root = '2.16.840.1.113883.10.20.27.3.23']

[templateId/@extension='2016-03-01']

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@classCode	1..1	SHALL		<a href="#">23-3269</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">23-3270</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">2233-711272</a>	
@root	1..1	SHALL		<a href="#">2233-711273</a>	2.16.840.1.113883.10.20.27.3.23
templateId	1..1	SHALL		<a href="#">23-18098</a>	
@root	1..1	SHALL		<a href="#">23-18099</a>	2.16.840.1.113883.10.20.17.3.8
code	1..1	SHALL		<a href="#">23-3272</a>	
@code	1..1	SHALL		<a href="#">23-26550</a>	252116004
@codeSystem	1..1	SHALL		<a href="#">23-26551</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
effectiveTime	1..1	SHALL		<a href="#">23-3273</a>	
low	1..1	SHALL		<a href="#">23-3274</a>	
@value	1..1	SHALL		<a href="#">2233-711292</a>	20170101
high	1..1	SHALL		<a href="#">23-3275</a>	
@value	1..1	SHALL		<a href="#">2233-711293</a>	20171231

1. Conforms to Reporting Parameters Act template (2.16.840.1.113883.10.20.17.3.8).
2. **SHALL** contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:23-3269).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:23-3270).
4. **SHALL** contain exactly one [1..1] templateId (CONF:2233-711272) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.23" (CONF:2233-711273).
5. **SHALL** contain exactly one [1..1] templateId (CONF:23-18098) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8" (CONF:23-18099).

Note: Reporting Parameters Act templateId (QRDA III)
6. **SHALL** contain exactly one [1..1] code (CONF:23-3272).
  - a. This code **SHALL** contain exactly one [1..1] @code="252116004" Observation Parameters (CONF:23-26550).

- b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.96"` (CodeSystem: SNOMED CT `urn:oid:2.16.840.1.113883.6.96`) (CONF:23-26551).
7. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:23-3273).
- a. This `effectiveTime` **SHALL** contain exactly one [1..1] `low` (CONF:23-3274).
    - i. This `low` **SHALL** contain exactly one [1..1] `@value="20170101"` (CONF:2233-711292).  
Note: For Program Year 2017, the reporting parameter start date **SHALL** be "20170101".
    - i. This `high` **SHALL** contain exactly one [1..1] `@value="20171231"` (CONF:2233-711293).  
Note: For Program Year 2017, the reporting parameter end date **SHALL** be "20171231".

**Figure 37: Reporting Parameters Act (CMS EP) Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- Reporting Parameters Act template ID -->
  <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
  <!-- Reporting Parameters Act (CMS EP) (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.23" extension="2016-03-01"/>
  <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
  <code code="252116004"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Observation Parameters" />
  <effectiveTime>
    <!-- The low value is the start date of the reporting period -->
    <low value="20170101"/>
    <!-- The high value is the end date of the reporting period -->
    <high value="20171231"/>
  </effectiveTime>
</act>
```

### 8.3.10 Reporting Stratum (CMS EP)

[observation: templateId 2.16.840.1.113883.10.20.27.3.20 (open)]

**Table 34: Reporting Stratum (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP) (V2) (optional)</a>	<a href="#">Aggregate Count (CMS EP)</a> <a href="#">Continuous Variable Measure Value (CMS EP)</a>

Stratifications are used to classify populations by one or more characteristics, variables, or other categories. As subsets of the overall population, they are used in risk adjustment, analysis and interpretation. Examples of stratification include age, discharge status for an inpatient stay, facility location within a hospital (e.g., ICU, Emergency Department), surgical procedures, and specific conditions.

This observation uses the `reference/externalObservation` element to reference the stratification used in the quality measure. The definition of the stratification is in the

corresponding eMeasure. The Reporting Stratum also provides the number of patients in the referenced stratification. Note that all strata must be present for CMS EP program reporting, even if the count is zero. Each stratum identified in the referenced eMeasure(s), must be reported for each population. Each stratum may only be reported once for a specific population.

**Table 35: Reporting Stratum (CMS EP) Constraints Overview**  
observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.20']

XPath	Card .	Verb	Data Type	CONF#	Fixed Value
@classCode	1..1	SHALL		<a href="#">77-17575</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">77-17576</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1109-711274</a>	
@root	1..1	SHALL		<a href="#">1109-711275</a>	2.16.840.1.113883.10.20.27.3.20
templateId	1..1	SHALL		<a href="#">77-18093</a>	
@root	1..1	SHALL		<a href="#">77-18094</a>	2.16.840.1.113883.10.20.27.3.4
code	1..1	SHALL		<a href="#">77-17577</a>	
@code	1..1	SHALL		<a href="#">77-17578</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">77-21169</a>	urn:oid:2.16.840.1.113883.5.4 (ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">77-17579</a>	
@code	1..1	SHALL		<a href="#">77-18201</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	0..1	SHOULD		<a href="#">77-17580</a>	
entryRelationship	1..1	SHALL		<a href="#">77-17581</a>	
@typeCode	1..1	SHALL		<a href="#">77-17582</a>	SUBJ
@inversionInd	1..1	SHALL		<a href="#">77-17583</a>	true
observation	1..1	SHALL		<a href="#">1109-711197</a>	Aggregate Count (CMS EP) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24
entryRelationship	0..*	MAY		<a href="#">77-19511</a>	
observation	1..1	SHALL		<a href="#">1109-711211</a>	Continuous Variable Measure Value (CMS EP) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26
reference	1..1	SHALL		<a href="#">77-18204</a>	
@typeCode	1..1	SHALL		<a href="#">77-18205</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

XPath	Card .	Verb	Data Type	CONF#	Fixed Value
externalObservation	1..1	SHALL		<a href="#">77-18206</a>	
id	1..1	SHALL		<a href="#">77-18207</a>	

1. Conforms to Reporting Stratum template (2.16.840.1.113883.10.20.27.3.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:77-17575).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:77-17576).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1109-711274) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.20" (CONF:1109-711275).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:77-18093) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.4" (CONF:77-18094).

Note: Reporting Stratum templateId (QRDA III)
6. **SHALL** contain exactly one [1..1] **code** (CONF:77-17577).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:77-17578).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:77-21169).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:77-17579).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:77-18201).
8. **SHOULD** contain zero or one [0..1] **value** (CONF:77-17580).
  - a. This value **SHALL** be the same as the contents of the observation/code element in the referenced eMeasure (e.g., 21112-8 'Birth date') (CONF:1109-711232).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:77-17581) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CONF:77-17582).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:77-17583).
  - c. **SHALL** contain exactly one [1..1] [Aggregate Count \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:1109-711197).

The Continuous Variable template may also be nested inside the Reporting Stratum Template to represent continuous variables found in quality measures for the various strata.

10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:77-19511) such that it
  - a. **SHALL** contain exactly one [1..1] [Continuous Variable Measure Value \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.26) (CONF:1109-711211).
11. **SHALL** contain exactly one [1..1] **reference** (CONF:77-18204).
  - a. This reference **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:77-18205).

- b. This reference **SHALL** contain exactly one [1..1] **externalObservation** (CONF:77-18206).
    - i. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:1109-711210).
- Note: This is the ID of the stratum in the referenced eMeasure.

**Figure 38: Reporting Stratum (CMS EP) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Reporting Stratum template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.4"/>
  <!-- Reporting Stratum (CMS EP) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.20"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"
    displayName="Assertion"
    codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" nullFlavor="OTH">
    <originalText>Stratum</originalText>
  </value>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count (CMS EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
  <reference typeCode="REFR">
    <!-- Reference to the relevant strata in the eMeasure -->
    <externalObservation classCode="OBS" moodCode="EVN">
      <id root="9ACF2C09-8C0A-4BAD-97C1-DF6CB37E1AEB"/>
    </externalObservation>
  </reference>
</observation>

```

### 8.3.11 Sex Supplemental Data Element (CMS EP) (V2)

[observation: templateId 2.16.840.1.113883.10.20.27.3.21:2016-03-01  
(open)]

**Table 36: Sex Supplemental Data Element (CMS EP) Contexts**

Contained By	Contains
<a href="#">Measure Data (CMS EP) (V2)</a> (required)	<a href="#">Aggregate Count (CMS EP)</a>

This observation represents the sex of a person as used for administrative purposes (as opposed to clinical gender) and provides the number of patients in the population that are of that sex. For CMS EP programs, all codes present in the value set must be reported, even if the count is zero. If the eMeasure is episode-based, the count will reflect the patient count rather than the episode count.

**Table 37: Sex Supplemental Data Element (CMS EP) Constraints Overview**  
 observation[templateId/@root = '2.16.840.1.113883.10.20.27.3.21']  
 [templateId/@extension='2016-03-01']

XPath	Card.	Verb	Data Type	CONF#	Fixed Value
@classCode	1..1	SHALL		<a href="#">2226-18230</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">2226-18231</a>	urn:oid:2.16.840.1.113883.5.1001 (ActMood) = EVN
templateId	1..1	SHALL		<a href="#">2233-711259</a>	
@root	1..1	SHALL		<a href="#">2233-711260</a>	2.16.840.1.113883.10.20.27.3.21
@extension	1..1	SHALL		<a href="#">2233-711301</a>	2016-03-01
templateId	1..1	SHALL		<a href="#">2226-18232</a>	
@root	1..1	SHALL		<a href="#">2226-18233</a>	2.16.840.1.113883.10.20.27.3.6
@extension	1..1	SHALL		<a href="#">2226-21160</a>	2016-02-01
code	1..1	SHALL		<a href="#">2226-18234</a>	
@code	1..1	SHALL		<a href="#">2226-18235</a>	184100006
@codeSystem	1..1	SHALL		<a href="#">2226-21163</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">2226-18124</a>	
@code	1..1	SHALL		<a href="#">2226-18125</a>	urn:oid:2.16.840.1.113883.5.14 (ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">2226-18236</a>	urn:oid:2.16.840.1.113762.1.4.1 (ONC Administrative Sex)
entryRelationship	1..1	SHALL		<a href="#">2226-18126</a>	
@typeCode	1..1	SHALL		<a href="#">2226-18127</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">2226-18128</a>	true
observation	1..1	SHALL		<a href="#">2233-711202</a>	<a href="#">Aggregate Count (CMS EP) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24)</a>

1. Conforms to Sex Supplemental Data Element (V2) template  
(2.16.840.1.113883.10.20.27.3.6:2016-02-01).
2. **SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:2226-18230).**
3. **SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:2226-18231).**
4. **SHALL contain exactly one [1..1] templateId (CONF:2233-711259) such that it**

- a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.27.3.21"` (CONF:2233-711260).
  - b. **SHALL** contain exactly one [1..1] `@extension="2016-03-01"` (CONF:2233-711301).
5. **SHALL** contain exactly one [1..1] `templateId` (CONF:2226-18232) such that it
- a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.27.3.6"` (CONF:2226-18233).  
Note: Sex Supplemental Data Element templateId (QRDA III)
  - b. **SHALL** contain exactly one [1..1] `@extension="2016-02-01"` (CONF:2226-21160).
6. **SHALL** contain exactly one [1..1] `code` (CONF:2226-18234).
- a. This code **SHALL** contain exactly one [1..1] `@code="184100006"` Patient sex (CONF:2226-18235).
  - b. This code **SHALL** contain exactly one [1..1]  
`@codeSystem="2.16.840.1.113883.6.96"` (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:2226-21163).
7. **SHALL** contain exactly one [1..1] `statusCode` (CONF:2226-18124).
- a. This statusCode **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:2226-18125).
8. **SHALL** contain exactly one [1..1] `value` with `@xsi:type="CD"`, where the code **SHALL** be selected from ValueSet [ONC Administrative Sex](#)  
urn:oid:2.16.840.1.113762.1.4.1 **DYNAMIC** (CONF:2226-18236).
9. **SHALL** contain exactly one [1..1] `entryRelationship` (CONF:2233-18126) such that it
- a. **SHALL** contain exactly one [1..1] `@typeCode="SUBJ"` Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:2233-18127).
  - b. **SHALL** contain exactly one [1..1] `@inversionInd="true"` (CONF:2233-18128).
  - c. **SHALL** contain exactly one [1..1] [Aggregate Count \(CMS EP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711202).

**Figure 39: Sex Supplemental Data Element (CMS EP) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Sex Supplemental Data Element (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.6" extension="2016-02-01"/>
  <!-- Sex Supplemental Data Element (CMS EP) (V2) template ID -->
  <templateId root="2.16.840.1.113883.10.20.27.3.21" extension="2016-03-01"/>
  <code code="184100006"
    displayName="patient sex"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED-CT"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="F"
    codeSystem="2.16.840.1.113883.5.1"
    codeSystemName="AdministrativeGender"/>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <!-- Aggregate Count (CMS EP) -->
    <observation classCode="OBS" moodCode="EVN">
      ...
    </observation>
  </entryRelationship>
</observation>
```

DRAFT

# APPENDIX

## 9 Troubleshooting and Support

### 9.1 Resources

The following provide additional information:

- **eCQM Library** contains resources for eCQMs including Measure Logic Guidance: [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIIncentivePrograms/eCQM\\_Library.html](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIIncentivePrograms/eCQM_Library.html)
- **National Library of Medicine (NLM) Value Set Authority Center (VSAC)** contains the official versions of the value sets used for eCQMs: <https://vsac.nlm.nih.gov/>
- **Electronic Clinical Quality Measure specification feedback system** is a tool offered by CMS and the Office of the National Coordinator (ONC) for Health Information Technology for implementers to submit issues and request guidance on eCQM logic, specifications, and certification: <http://oncprojecttracking.org/secure/Dashboard.jspa>
- **eCQI Resource Center** is the one-stop shop for the most current resources to support electronic clinical quality improvement: <https://ecqi.healthit.gov/>

### 9.2 Support

Table 38: Support Contact Information

Contact	Org.	Phone	Email	Role	Responsibility
CMS IT Service Desk	CMS	(410) 786-2580 (800) 562-1963	<a href="mailto:CMS_IT_Service_Desk@cms.hhs.gov">CMS_IT_Service_Desk@cms.hhs.gov</a>	Help desk support	1 <sup>st</sup> level user support & problem reporting

### 9.3 Errata or Enhancement Requests

Table 39: Errata or Enhancement Request Location

Contact	Organization	URL	Purpose
HL7 QRDA-I R1, DSTU Release 3.1 Comments page	HL7	<a href="http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=186">http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=186</a>	Document errors or enhancement request to the HL7 standard.
HL7 QRDA-III, DSTU Release 1.1 Comments page	HL7	<a href="http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=90">http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=90</a>	Document errors or enhancement request to the HL7 standard.

## 10 PQRS Specific Validations for QRDA-I

## 10.1 Date and Time Validation

Many aspects of measures calculation depend on time, as temporal logics are commonly used in specifying eCQMs. In general, if a time element is required in measures calculations, (i.e. the time element is identified in a SHALL constraint in the base HL7 QRDA-I DSTU R3.1 standard or this guide) then a time, in valid format (see Table 41: Valid Date/Time Format for PQRS), must be provided or PQRS will reject the submission. Table 40 below lists the general validation rules for time elements performed by PQRS.

**Table 40: Time Elements Validation Rules**

Time Element Constraint	Validation Rules
Time element is specified as a SHALL constraint	Submission will be rejected if the time element is not provided.
Time element is specified as a SHOULD constraint	Submission will not be rejected if the time element is not provided. A warning message will be generated.
Time element is specified as a MAY constraint	Submissions will not be rejected if the time element is not provided. No error or warning message will be generated.
All time elements if were provided, regardless of SHALL/SHOULD/MAY, must be in a valid format	Submissions will be rejected if time (if were provided) is not in a valid format as specified in Table 41: Valid Date/Time Format for PQRS.

## 10.2 Valid Date/Time Format

Table 41: Valid Date/Time Format for PQRS lists the valid date/time formats that are required by PQRS.

**Table 41: Valid Date/Time Format for PQRS**

Date and Time Format Validation Rules	Examples
<p>Valid Date/Time Format: YYYYMMDDHHMMSSxUUUU where</p> <ul style="list-style-type: none"> <li>YYYY - year - range 0001 to 9999</li> <li>MM - month - range 01 to 12</li> <li>DD - day - range 01 to 31 (note: true to month and leap years)</li> <li>HH - hour - range 0 to 23</li> <li>MM - minutes - range 0-59</li> <li>SS - seconds - range 0-59</li> <li>x - plus or minus sign</li> <li>UUUU - UTC time shift -1300 thru +1400</li> </ul>	For example, 20170130113045+1200

Date and Time Format Validation Rules	Examples
A full Date/Time (YYYYMMDDHHMMSSxUUUU) can always be provided.  Only two partial Date/Time formats are allowed, they are:  YYYYMMDD YYYYMMDDHHMMSS	For example, partial date/time such as 2017 and 201703 are not allowed.
Dates are true to month.	For example, 20170931 is invalid because September only has 30 days in it.
Leap year calculation is validated.	For example, 20170229 is invalid because 2017 is not a leap year.
The UTC time shift range is -1300 thru +1400. Time shifts outside this range are invalid. The last two digits are 'minutes' so they must be in the range of 00 to 59.	For example, -1262 is invalid because 62 is outside the range of 00 to 59.

## 10.3 Value Set Validation

Table 42: Value Set Validation Rules for QDM Datatypes and QDM Attributes lists the validation rules performed by PQRS to ensure proper code/codeSystem/@sdtc:valueSet combinations are provided in every entry template within Patient Data Section, where value set binding for Quality Data Model (QDM) datatypes and QDM attributes is expected in the entry template according to corresponding eCQM specifications.

**Table 42: Value Set Validation Rules for QDM Datatypes and QDM Attributes**

Value Set Validation Rules	Examples and Clarifications
Code and code system provided in the @code and @codeSystem attributes must be a valid code and code system from the value set provided in the @sdtc:valueSet attribute	<code code="10725009" codeSystem="2.16.840.1.113883.6.96" sdtc:valueSet="2.16.840.1.113883.3.464.1003.104.12.1011"/>  The code and code system in this example must be valid code and code system from the Essential Hypertension value set (2.16.840.1.113883.3.464.1003.104.12.1011) as defined in VSAC.
Value set OID provided in the @sdtc:valueSet attribute must be from the proper QDM Category that the patient data entry template belongs to.  Submissions will be rejected with a value set validation error, if provided value set OID is from a different QDM Category than what is expected by that patient data entry template.	Some examples of QDM Categories are Diagnostic Study, Condition/Diagnosis/Problem, Encounter, and Medication.  “Medication Active”, “Medication Order”, and “Medication Administered” patient data entry templates all must include value sets from the “Medication” QDM Category.  “Encounter Performed” patient data entry template must include value sets from the “Encounter” QDM Category.

Value Set Validation Rules	Examples and Clarifications
<p>For all QDM attributes, value set OID provided in the @sdtc:valueSet attribute must be value sets from the Attribute category.</p>	<ul style="list-style-type: none"> <li>Example eCQM logic: "Diagnosis, Active: Unilateral Amputation Below or Above Knee, Unspecified Laterality (laterality: Right)" Value set OID provided for the Laterality attribute of "Diagnosis Active" must be a value set from the Attribute category.</li> <li>Example eCQM logic: "Intervention, Order: Followup within 4 weeks (reason: Finding of Hypertension)" Value set OID provided for the Reason attribute of "Intervention Order" must be a value set from the Attribute category.</li> <li>Example eCQM logic: "Laboratory Test, Performed: Mumps Antibody Test (IgG Antibody presence) (result: Positive Finding)" Some QDM data types, such as Laboratory Test Performed and Risk Category Assessment, have a QDM attribute Result. The Result attribute is represented using the "value" attribute of that QRDA template. The value set OID provided for the Result attribute must be a value set from the Attribute category.</li> </ul>
<p>For "not done" reasons, value set OID provided in the @sdtc:valueSet attribute must be value sets from the QDM Category that the not done is negating on.</p>	<ul style="list-style-type: none"> <li>Example eCQM logic: "Risk Category Assessment not done: Medical Reason" for "Falls Screening" during "Measurement Period" Value set OID provided to indicate Medical Reason for this not done logic must be a value set from the "Risk Category Assessment" QDM Category. Note: Medical/Patient/System reason for "not done" is represented using the Reason template (id: 2.16.840.1.113883.10.20.24.3.88:2014-12-01). The QDM attribute Reason is also represented using the same Reason template. However, proper value set category validations are performed differently for "not done" reasons and Reason attribute.</li> </ul>

## 10.4 HIC Number Validation

Patient's Medicare Health Insurance Claim (HIC) Number must be properly formatted to support measures calculation. A HIC number must meet the following requirements. (Note: this specified format validation rule is for EP only.)

Submissions with improperly formatted HIC numbers will be rejected.

- (a) No embedded dashes or spaces.
- (b) Must be alphanumeric.

- (c) Alpha characters must be upper case.
- (d) Length can't be > 12 or < 7.
- (e) If alphanumeric, all numbers cannot be 9s.
- (f) If length 7: must be 1 alpha + 6 numeric.
- (g) If length 8: must be 2 alpha + 6 numeric.
- (h) If length 9: must be 3 alpha + 6 numeric.
- (i) If length 10: can either be 1 alpha + 9 numeric, or 9 numeric + 1 alpha.
- (j) If length 11: must be 2 alpha + 9 numeric, or 9 numeric + 1 alpha + 1 numeric, or 9 numeric + 2 alpha.
- (k) If length 12: must be 3 alpha + 9 numeric.

## 10.5 UCUM Codes Validation for Result with PQ Datatype

The Result (V3) template (2.16.840.1.113883.10.20.24.3.87:2016-02-01) contains the following constraint:

If xsi:type=PQ, then @units shall be drawn from Unified Code for Units of Measure (UCUM) 2.16.840.1.113883.6.8 code system. Additional constraint is dependent on criteria in the corresponding eMeasure (CONF:2228-16702).

Because measure calculation currently does not use @units value and therefore, for CONF:2228-16702, PQRS does not validate the actual unit provided in the @units attribute against the UCUM code system.

## 10.6 Validation is Not Always Done on Clinical ‘Results’

Depending on the measure logic in an eCQM specification, the data types of expected value for a Result QDM attribute of a QDM datatype such as Laboratory Test Performed and Risk Category Assessment could vary.

A result 'value' element can take many forms based on its xsi:type. If the xsi:type is casted to "CD", "CE", "CO", or "CV" data types, then an @code, @codeSystem, @sdtc:valueSet must be provided and are validated according to the rules specified in Section 10.3 Value Set Validation. If the xsi:type is casted to anything other than "CD", "CE", "CO", or "CV" data types, then no value set validation is performed.

## 10.7 A “code” Attribute is Not Required for Clinical Codes in ‘Not Done’ – Negated Entry Templates

Some eCQM specifications contain measure logic that includes “not done”, such as “Risk Category Assessment not done: Medical Reason”. To report this in QRDA-I, the negation indicator (negationInd) attribute of an appropriate entry template is set to 'true', @nullFlavor="NA" together with the value set OID representing the act that was not performed; an individual value from the respective value set should not be reported. The clinical intent is to indicate that “all of these codes represented by the value set were not done” and the reason is one of the codes from the reason value set (for example, the Medical Reason value set).

Therefore, if negationInd is set to 'true' for a given entry template, then the "code" attribute for the associated clinical code is optional, as is the "codeSystem" attribute. The "sdtc:valueSet" attribute is still required. Even though the "code" and "codeSystem" attributes are optional, if they are provided, the submission will be rejected if that "code" and "codeSystem" are not in the provided "sdtc:valueSet".

## 10.8 Use of Translation Codes for PQRS

The base HL7 QRDA-I R1, DSTU R3.1 IG indicates that if 'nullFlavor="OTH"' is specified in a code or value element then the @code does not have to be provided and, instead, a translation code can be entered. For clinical codes in the Patient Data Section of a QRDA-I file, PQRS does not support this option. PQRS ignores the "nullFlavor" in this instance and ignores all translation codes. The primary @code must always be provided along with the @codeSystem and @sdtc:valueSet.



# 11 Null Flavor Rules for Data Types

CDA, Release 2 uses the HL7 V3 Data Types, Release 1 abstract and XML-specific specification. Every data element either has a proper value or it is considered NULL. If and only if it is NULL, a "null flavor" provides more detail on why or in what way no proper value is supplied. The table below provides clarifications to proper nullFlavor use for a list of common data types used by this guide.

**Table 43: Null Flavor Rules for Data Types**

Data Type	Rules
Boolean (BL)	@value and @nullFlavor attributes are mutually exclusive.
Coded Simple (CS)	@code and @nullFlavor attributes are mutually exclusive.
Coded Descriptor (CD)	<p>@code or @nullFlavor or both @codeSystem and @nullFlavor="OTH" are allowed, but cannot have both @code and @nullFlavor and cannot have @codeSystem and @nullFlavor that does not equal "OTH".</p> <p>If @code is present, @codeSystem is always required.</p> <p>(Note: For clinical codes in the Patient Data Section of a QRDA-I file, PQRS does not support the use of @nullFlavor="OTH", it always require @code, @codeSystem, and @sdcc:valueSet. See 10.8 Use of Translation Codes for PQRS for details.)</p>
Coded With Equivalents (CE)	Same as data type CD.
Instance Identifier (II)	@root is allowed to be present with @extension or @nullFlavor, but @root is not allowed with both @extension and @nullFlavor at the same time.
Integer Number (INT)	@value and @nullFlavor attributes are mutually exclusive.
Physical Quantity (PQ)	@value and @nullFlavor attributes are mutually exclusive. The unit attribute must be populated if the value attribute is present, and cannot be present when the value attribute is not present.
Real Number (REAL)	@value and @nullFlavor attributes are mutually exclusive.
Universal Resource Locator (URL)	@value and @nullFlavor attributes are mutually exclusive.

# 12 QRDA-I DSTU R3.1 Supplemental Implementation Guide Changes to Base Standard

This table lists all changes made to QRDA-I for Part A of this 2017 guide. The "Base Standard" is the *HL7 Implementation Guide for CDA Release 2: Quality Report Document Architecture, Category I, DSTU Release 3.1*, (published April, 2016)<sup>7</sup>.

**Table 44: Changes Made to the QRDA-I DSTU R3.1 Base Standard**

CONF. #	Section	Base Standard	Changed To
CMS_0001	5.1.1	n/a	Conforms to QDM-Based QRDA (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.24.1.2:2016-02-01). <b>SHALL</b> contain exactly one [1..1] <code>templateId</code> (CONF:CMS_0001) such that it
CMS_0002 CMS_0003	5.1.1	n/a	<b>SHALL</b> contain exactly one [1..1] <code>@root="2.16.840.1.113883.1 0.20.24.1.3"</code> (CONF:CMS_0002). <b>SHALL</b> contain exactly one [1..1] <code>@extension="2016-03-01"</code> (CONF:CMS_0003).
CMS_0010	5.1.1	n/a	This languageCode <b>SHALL</b> contain exactly one [1..1] <code>@code="en"</code> (CONF:CMS_0010).

<sup>7</sup> The *HL7 Implementation Guide for CDA Release 2: Quality Report Document Architecture, Category I, DSTU Release 3.1* has been published by HL7 on April, 2016.

CONF. #	Section	Base Standard	Changed To
CMS_0004 CMS_0005 CMS_0052 CMS_0006 CMS_0008	5.1.1	n/a	<p>The participant, if present, <b>SHALL</b> contain exactly one [1..1] <b>associatedEntity</b> (CONF:CMS_0004).</p> <p>This associatedEntity <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:CMS_0005) such that it <b>SHALL NOT</b> contain [0..0] <b>@nullFlavor</b> (CONF:CMS_0052).</p> <p><b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.3.2074.1"</b> CMS EHR Certification Number (formerly known as Office of the National Coordinator Certification Number) (CONF:CMS_0006).</p> <p><b>SHALL</b> contain exactly one [1..1] <b>@extension</b> (CONF:CMS_0008).</p> <p>Note: The value of @extension is the Certification Number.</p>
CMS_0009 CMS_0053 CMS_0103 CMS_0007	5.1.2	n/a	<p>This patientRole <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:CMS_0009) such that it <b>SHALL</b> contain exactly one [1..1] <b>@root</b> (CONF:CMS_0053).</p> <p>Note: This is the provider's organization OID or other non-null value different than the OID for the Medicare HIC Number (2.16.840.1.113883.4.572).</p> <p><b>SHALL</b> contain exactly one [1..1] <b>@extension</b> (CONF:CMS_0103).</p> <p>Note: The value of @extension is the Patient ID.</p> <p><b>SHALL</b> contain exactly one Patient Identifier Number (CONF:CMS_0007).</p>
1098_5284_C01	5.1.2	This patient <b>SHALL</b> contain at least one [1..*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5284).	This patient <b>SHALL</b> contain exactly one [1..1] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5284_C01).

CONF. #	Section	Base Standard	Changed To
CMS_0011 CMS_0029	5.1.2	This patient <b>SHALL</b> contain exactly one [1..1] <b>administrativeGenderCode</b> , which <b>SHALL</b> be selected from ValueSet <b>Administrative Gender (HL7 V3)</b> urn:oid:2.16.840.1.113883.1.11.1 <b>DYNAMIC</b> (CONF:1198-6394).	This patient <b>SHALL</b> contain exactly one [1..1] <b>administrativeGenderCode</b> , which <b>SHALL</b> be selected from ValueSet <b>ONC Administrative Sex</b> urn:oid:2.16.840.1.113762.1.4.1 <b>DYNAMIC</b> (CONF:CMS_0011). If the patient's administrative sex is unknown, nullFlavor="UNK" <b>SHALL</b> be submitted (CONF:CMS_0029).
1098_5300_C01	5.1.2	This patient <b>SHALL</b> contain exactly one [1..1] <b>birthTime</b> (CONF:1140-27571). <b>SHOULD</b> be precise to day (CONF:1098-5300).	This patient <b>SHALL</b> contain exactly one [1..1] <b>birthTime</b> (CONF:1140-27571). <b>SHALL</b> be precise to day (CONF:1098-5300_C01).
CMS_0013 CMS_0030 CMS_0031	5.1.2	This patient <b>SHALL</b> contain exactly one [1..1] <b>raceCode</b> , which <b>SHALL</b> be selected from ValueSet <b>Race Category Excluding Nulls</b> urn:oid:2.16.840.1.113883.3.2074.1.1.3 <b>DYNAMIC</b> (CONF:1198-5322).	This patient <b>SHALL</b> contain exactly one [1..1] <b>raceCode</b> , which <b>SHALL</b> be selected from ValueSet <b>Race</b> urn:oid:2.16.840.1.114222.4.1.1.836 <b>DYNAMIC</b> (CONF:CMS_0013). If the patient's race is unknown, nullFlavor="UNK" <b>SHALL</b> be submitted (CONF:CMS_0030). If the patient declined to specify his/her race, nullFlavor="ASKU" <b>SHALL</b> be submitted (CONF:CMS_0031).
CMS_0014	5.1.2	This patient <b>MAY</b> contain zero or more [0..*] <b>sdtc:raceCode</b> , which <b>SHALL</b> be selected from ValueSet <b>Race</b> urn:oid:2.16.840.1.113883.1.11.14914 <b>DYNAMIC</b> (CONF:1198-7263).	This patient <b>MAY</b> contain zero or more [0..*] <b>sdtc:raceCode</b> , which <b>SHALL</b> be selected from ValueSet <b>Race</b> urn:oid:2.16.840.1.114222.4.1.1.836 <b>DYNAMIC</b> (CONF:CMS_0014). Note: If a patient has more than one race category, one race is reported in raceCode, and additional races are reported using sdtc:raceCode.

CONF. #	Section	Base Standard	Changed To
CMS_0032 CMS_0033	5.1.2	This patient <b>SHALL</b> contain exactly one [1..1] <b>ethnicGroupCode</b> , which <b>SHALL</b> be selected from ValueSet <b>Ethnicity</b> urn:oid:2.16.840.1.114222.4.11.837 <b>DYNAMIC</b> (CONF:1098-5323).	This patient <b>SHALL</b> contain exactly one [1..1] <b>ethnicGroupCode</b> , which <b>SHALL</b> be selected from ValueSet <b>Ethnicity</b> urn:oid:2.16.840.1.114222.4.11.837 <b>DYNAMIC</b> (CONF:1098-5323).  If the patient's ethnicity is unknown, nullFlavor="UNK" <b>SHALL</b> be submitted (CONF:CMS_0032).  If the patient declined to specify his/her ethnicity, nullFlavor="ASKU" <b>SHALL</b> be submitted (CONF:CMS_0033).
CMS_0035	5.1.3	n/a	CCN <b>SHALL</b> be six to ten characters in length (CONF:CMS_0035).
2228_1670 3_C01	5.1.4	<b>MAY</b> contain zero or more [0..*] <b>informationRecipient</b> (CONF:2228-16703).	<b>SHALL</b> contain exactly one [1..1] <b>informationRecipient</b> (CONF:2228-16703_C01).
1140_1670 5_C01 CMS_0043 CMS_0025 CMS_0026	5.1.4	This intendedRecipient <b>SHALL</b> contain at least one [1..*] <b>id</b> (CONF:1140-16705).	This intendedRecipient <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:1140-16705_C01).  <b>SHALL NOT</b> contain [0..0] @nullFlavor (CONF:CMS_0043). This id <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.3.249.7" (CONF:CMS_0025). This id <b>SHALL</b> contain exactly one [1..1] @extension, which <b>SHALL</b> be selected from ValueSet <u><a href="#">QRDA-I CMS Program Name</a></u> urn:oid:2.16.840.1.113883.3.249.14.103 <b>STATIC</b> 2015-07-01 (CONF:CMS_0026). Note: The value of @extension is CMS Program Name.
CMS_0100 CMS_0101	5.1.5	n/a	This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] <b>assignedEntity</b> (CONF:CMS_0100).  This assignedEntity <b>MAY</b> contain zero or one [0..1] <b>representedOrganization</b> (CONF:CMS_0101).
2228-16579_C01	5.1.6	<b>MAY</b> contain zero or one [0..1] <b>documentationOf</b> (CONF:2228-16579) such that it	<b>SHALL</b> contain exactly one [1..1] <b>documentationOf</b> (CONF:2228-16579_C01) such that it

<b>CONF. #</b>	<b>Section</b>	<b>Base Standard</b>	<b>Changed To</b>
2228-16583_C01	5.1.6	This serviceEvent <b>SHALL</b> contain at least one [1..*] <b>performer</b> (CONF:2228-16583).	(Note: PQRS only) This serviceEvent <b>SHALL</b> contain exactly one [1..1] <b>performer</b> (CONF:2228-16583_C01)
2228-16587_C01	5.1.6	This assignedEntity <b>SHOULD</b> contain zero or one [0..1] <b>id</b> (CONF:1140-16587) such that it	(Note: PQRS only) This assignedEntity <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:1140-16587_C01) such that it
2228-16591_C01 2228-16592_C01 CMS_0102	5.1.6	This assignedEntity <b>SHALL</b> contain exactly one [1..1] <b>representedOrganization</b> (CONF:2228-16591).  This representedOrganization <b>SHOULD</b> contain zero or one [0..1] <b>id</b> (CONF:2228-16592) such that it	(Note: PQRS only) This assignedEntity <b>SHALL</b> contain exactly one [1..1] <b>representedOrganization</b> (CONF:2228-16591_C01).  This representedOrganization <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:2228-16592_C01) such that it <b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.4.2"</b> Tax ID Number (CONF:2228-16593).  <b>SHALL</b> contain exactly one [1..1] <b>@extension</b> (CONF:CMS_0102).
CMS_0019 CMS_0020	5.1.6	n/a	This assignedEntity <b>MAY</b> contain zero or one [0..1] <b>assignedPerson</b> (CONF:CMS_0019).  The assignedPerson, if present, <b>MAY</b> contain zero or one [0..1] <b>name</b> (CONF:CMS_0020).  Note: This is the provider's name.
CMS_0022	5.1.6	n/a	This representedOrganization <b>MAY</b> contain zero or one [0..1] <b>name</b> (CONF:CMS_0022).

CONF. #	Section	Base Standard	Changed To
CMS_0040	5.2.2	n/a	Conforms to Reporting Parameters Section template (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1). <b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:CMS_0040) such that it <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.2.1" (CONF:CMS_0041). <b>SHALL</b> contain exactly one [1..1] @extension="2015-07-01" (CONF:CMS_0042).
CMS_0041			
CMS_0042			
CMS_0023			
CMS_0024			<b>SHALL</b> contain exactly one [1..1] <b>entry</b> (CONF:CMS_0023) such that it <b>SHALL</b> contain exactly one [1..1] <b>Reporting Parameters Act - CMS</b> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.17.3.8:2015-07-01) (CONF:CMS_0024).
CMS_0044	5.2.2.1	n/a	Conforms to Reporting Parameters Act template (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8). <b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:CMS_0044) such that it <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8" (CONF:CMS_0045). <b>SHALL</b> contain exactly one [1..1] @extension="2015-07-01" (CONF:CMS_0046).
CMS_0045			
CMS_0046			

CONF. #	Section	Base Standard	Changed To
CMS_0048 CMS_0027 CMS_0050 CMS_0028	5.2.2.1	<p><b>SHALL</b> contain exactly one [1..1] <b>effectiveTime</b> (CONF:23-3273).</p> <p>This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>low</b> (CONF:23-3274).</p> <p>This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>high</b> (CONF:23-3275).</p>	<p><b>SHALL</b> contain exactly one [1..1] <b>effectiveTime</b> (CONF:23-3273).</p> <p>This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>low</b> (CONF:23-3274).</p> <p>This low <b>SHALL</b> contain exactly one [1..1] <b>@value</b> (CONF:CMS_0048).</p> <p><b>SHALL</b> be precise to day (CONF:CMS_0027)</p> <p>This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>high</b> (CONF:23-3275).</p> <p>This high <b>SHALL</b> contain exactly one [1..1] <b>@value</b> (CONF:CMS_0050).</p> <p><b>SHALL</b> be precise to day (CONF:CMS_0028)</p>
CMS_0036 CMS_0037	5.2.3	n/a	Conforms to Patient Data Section QDM (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.2.1:2016-02-01). <p><b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:CMS_0036) such that it</p> <p><b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.24.2.1"</b> (CONF:CMS_0037).</p>
CMS_0051 CMS_0039	5.2.3	n/a	<p><b>SHALL</b> contain at least one [1..*] <b>entry</b> (CONF:CMS_0051) such that it</p> <p><b>SHALL</b> contain exactly one [1..1] entry template that is other than the Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:CMS_0039).</p>
2228-14430_C01	5.2.3	<p><b>MAY</b> contain zero or more [0..*] <b>entry</b> (CONF:2228-14430) such that it</p>	<p><b>SHALL</b> contain at least one [1..*] <b>entry</b> (CONF:2228-14430_C01) such that it</p> <p><b>SHALL</b> contain at least one [1..*] Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.1.0.20.24.3.55) (CONF:2228_14431).</p>

## 12.1 Program Specific Constraints

This table lists program specific constraints made to QRDA-I in Part A of this guide.

**Table 45: Program Specific Constraints to QRDA-I**

CONF. #	Section	Data Element/ Section	Description
2228-16858	5.1.2	Medicare HIC Number	This data element is required for PQRS, if the payer is Medicare.
2228-16587_C01 2228-16588	5.1.6	National Provider Identification (NPI) Number	This data element is optional for GPROs by setting <id @root='2.16.840.1.113883.4.6' @nullFlavor='NA'/>.
2228-16592_C01 2228-16593 CMS_0102	5.1.6	Tax Identification Number (TIN)	This data element is required for PQRS. nullFlavor is not allowed.

DRAFT

# 13 QRDA-III DSTU R1.1 Supplemental Implementation Guide Changes to Base Standard

This table lists all changes made to QRDA-III for Part B of this 2017 guide. The "Base Standard" is the *HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, DSTU Release 1.1* (published March 17, 2016).

**Table 46: Changes Made to the QRDA-III Base Standard**

CONF. #	Section	Base Standard	Changed To
711280	8.1	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF: 2233-711280) such that it
711281	8.1	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.2.0.27.1.2"</b> (CONF: 2233-711281).
711174 / 711246	8.1	<b>SHALL</b> contain exactly one [1..1] <b>confidentialityCode</b> , which <b>SHOULD</b> be selected from ValueSet HL7_BasicConfidentialityKind 2.16.840.1.113883.1.11.16926 <b>STATIC</b> 2010-04-21 (CONF:17238).	<b>SHALL</b> contain exactly one [1..1] <b>confidentialityCode</b> (CONF: 2233-711174). This <b>confidentialityCode</b> <b>SHALL</b> contain exactly one [1..1] <b>@code="N"</b> Normal (CodeSystem: ConfidentialityCode 2.16.840.1.113883.5.25 <b>STATIC</b> ) (CONF: 2233-711246).
711173 711247	8.1	This languageCode <b>SHALL</b> contain exactly one [1..1] <b>@code</b> , which <b>SHALL</b> be selected from ValueSet Language 2.16.840.1.113883.1.11.11526 <b>DYNAMIC</b> (CONF:19669).	<b>SHALL</b> contain exactly one [1..1] <b>languageCode</b> (CONF:2233-711173). This languageCode <b>SHALL</b> contain exactly one [1..1] <b>@code="en"</b> English (CodeSystem: Language 2.16.840.1.113883.6.121) (CONF: 2233-711247).
711240	8.1.2	n/a	This assignedAuthor <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF: 2233-711240).
711158	8.1.4	n/a	<b>SHALL</b> contain exactly one [1..1] <b>informationRecipient</b> (CONF: 2233-711158).
711159	8.1.4	n/a	This informationRecipient <b>SHALL</b> contain exactly one [1..1] <b>intendedRecipient</b> (CONF: 2233-711159).
711160	8.1.4	n/a	This intendedRecipient <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF: 2233-711160).

CONF. #	Section	Base Standard	Changed To
711161	8.1.4	n/a	The id/@root specifies that this identifier represents a CMS Program. This id <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.3.249.7" CMS Program (CONF: 2233-711161).
711162	8.1.4	n/a	The id/@extension contains the CMS Program the report is being submitted to. This id <b>SHALL</b> contain exactly one [1..1] @extension, which <b>SHALL</b> be selected from ValueSet <a href="#">CMS Program Name</a> 2.16.840.1.113883.3.249.14.10 1 <b>STATIC</b> (CONF: 2233-711162).
7111248	8.1.4	n/a	If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CP_C_PLUS", then ClinicalDocument/participant/@typeCode="LOC" <b>SHALL</b> be present (CONF: 2233-711248). NOTE: The CPC+ CMS program name identifier code is yet to be determined.
17225	8.1.5	<b>SHALL</b> contain exactly one [1..1] legalAuthenticator (CONF:17225).	<b>SHALL</b> contain exactly one [1..1] legalAuthenticator (CONF: 2226-17225). Note: If a Data Submission Vendor (DSV) is used, the DSV is the legalAuthenticator.
18167	8.1.5	This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] time (CONF:18167).	This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] time (CONF: 2226-18167). Note: This value is when the document was signed.
19670	8.1.5	This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] assignedEntity (CONF:19670).	When the legalAuthenticator is a DSV, the representedOrganization/id is the DSV TIN. The representedOrganization, if present, <b>SHALL</b> contain at least one [1..*] id (CONF: 2226-19670).
711150	8.1.7	n/a	<b>MAY</b> contain zero or one [0..1] participant (CONF: 2233-711150) such that it

CONF. #	Section	Base Standard	Changed To
711151	8.1.7	n/a	<b>SHALL</b> contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType 2.16.840.1.113883.5.90) (CONF: 2233-711151).
711152	8.1.7	n/a	<b>SHALL</b> contain exactly one [1..1] associatedEntity (CONF: 2233-711152).
711153	8.1.7	n/a	This associatedEntity <b>SHALL</b> contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: RoleClass 2.16.840.1.113883.5.110) (CONF: 2233-711153).
711154	8.1.7	n/a	This associatedEntity <b>SHALL</b> contain exactly one [1..1] id (CONF: 2233-711154).
711155	8.1.7	n/a	This id <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.3.249.5.1" CPC+ Participant (CONF: 2233-711155).
711156	8.1.7	n/a	This id <b>SHALL</b> contain exactly one [1..1] @extension (CONF: 2233-711156). Note: This is the CPC+ Participant ID assigned to the CPC+ participant. NOTE: The CPC+ Participant ID is yet to be determined.
711218	8.1.7	n/a	This associatedEntity <b>SHALL</b> contain exactly one [1..1] code (CONF: 711218).
711219	8.1.7	n/a	This code <b>SHALL</b> contain exactly one [1..1] @code="394730007" Healthcare Related Organization (CodeSystem: SNOMED CT 2.16.840.1.113883.6.96) (CONF: 2233-711219).
711157	8.1.7	n/a	This associatedEntity <b>SHALL</b> contain exactly one [1..1] addr (CONF: 2233-711157).
7111214	8.1.8	<b>MAY</b> contain zero or one [0..1] documentationOf (CONF: 18170).	<b>SHALL</b> contain exactly one [1..1] documentationOf (CONF: 711214).

CONF. #	Section	Base Standard	Changed To
711220	8.1.8	This serviceEvent <b>SHALL</b> contain at least one [1..*] <b>performer</b> (CONF:18173).	This serviceEvent <b>SHALL</b> contain at least one [1..*] <b>performer</b> (CONF: 2233-711220). Note: All providers seeking credit for CMS program reporting are listed as performers. For CPC+ reporting, only CPC+ Practice Site providers are listed as performers.
711167	8.1.8	This assignedEntity id/@root coupled with the id/@extension can be used to represent the individual provider's National Provider Identification number (NPI). Other assignedEntity ids may be present.  This assignedEntity <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:18177) such that it	The assignedEntity id/@root ='2.16.840.1.113883.4.6' coupled with the id/@extension represents the individual provider's National Provider Identification number (NPI). NPI is required except for the Group Practice Reporting Option (GPRO). For GPRO, id/@root='2.16.840.1.113883.4.6' is coupled with @nullFlavor="NA", and @extension shall be omitted.  This assignedEntity <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF: 2233-711167) such that it
711249	8.1.8	n/a	<b>MAY</b> contain zero or one [0..1] @nullFlavor="NA" (CONF: 2233-711249). Note: @nullFlavor is only present for PQRS GPRO reporting.
711169	8.1.8	<b>MAY</b> contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF:18178).	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider ID (CONF: 2233-711169). Note: This value specifies that the id is the provider's National Provider Identifier (NPI).
711170	8.1.8	<b>MAY</b> contain zero or one [0..1] @extension (CONF:18247).	<b>SHALL</b> contain exactly one [1..1] @extension (CONF: 2233-711170). Note: This is the provider's NPI, it is only present when this is not PQRS GPRO reporting.
711168	8.1.8	This representedOrganization <b>MAY</b> contain zero or one [0..1] <b>id</b> (CONF:18181) such that it	This representedOrganization <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF: 2233-711168) such that it
711171	8.1.8	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:18182).	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF: 2233-711171). Note: This value specifies that this id is the organization's Tax Identification Number (TIN).

CONF. #	Section	Base Standard	Changed To
711172	8.1.8	<b>SHALL</b> contain exactly one [1..1] @extension (CONF:18190).	<b>SHALL</b> contain exactly one [1..1] @extension (CONF: 2233-711172).
711141	8.1.10	<b>SHALL</b> contain exactly one [1..1] <u>QRDA Category III Reporting Parameters Section</u> (templateId:2.16.840.1.113883.10.20.27.2.2) (CONF:17282).	<b>SHALL</b> contain exactly one [1..1] <u>QRDA Category III Reporting Parameters Section (CMS EP)</u> (templateId:2.16.840.1.113883.10.20.27.2.6) (CONF: 2233-711141).
711142	8.1.10	<b>SHALL</b> contain exactly one [1..1] <u>QRDA Category III Measure Section</u> (templateId:2.16.840.1.113883.10.20.27.2.1) (CONF:17301).	<b>SHALL</b> contain exactly one [1..1] <u>QRDA Category III Measure Section (CMS EP)</u> (templateId:2.16.840.1.113883.10.20.27.2.3) (CONF: 2233-711142).
711276	8.2.1	n/a	<b>SHALL</b> contain exactly one [1..1] templateId (CONF:711276) such that it
711277	8.2.1	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.2.0.27.2.3" (CONF: 2233-711277).
711283	8.2.1	n/a	<b>SHALL</b> contain at least one [1..*] entry (CONF: 2233-711283) such that it
711284	8.2.1	n/a	<b>SHALL</b> contain exactly one [1..1] <u>Measure Reference and Results (CMS EP)</u> (templateId:2.16.840.1.113883.10.20.27.3.17) (CONF: 2233-711284).
711278	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] templateId (CONF: 2233-711278) such that it
711279	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.2.0.27.2.6" (CONF: 2233-711279).
711285	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] entry (CONF: 2233-711285) such that it
711286	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] @typeCode="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 STATIC) (CONF: 2233-711286).

CONF. #	Section	Base Standard	Changed To
711175	8.2.2	n/a	<b>SHALL</b> contain exactly one [1..1] <a href="#">Reporting Parameters Act (CMS EP)</a> (templateId:2.16.840.1.113883.10.20.27.3.23) (CONF: 2233-711175).
711262	8.3.1	n/a	<b>SHALL</b> contain exactly one [1..1] templateId (CONF: 2233-711262) such that it
711263	8.3.1	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.24" (CONF: 2233-711263).
711244	8.3.1	n/a	<b>SHALL</b> contain exactly one [1..1] statusCode (CONF: 2233-711244).
711245	8.3.1	n/a	This statusCode <b>SHALL</b> contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF: 2233-711245).
711264	8.3.2	n/a	<b>SHALL</b> contain exactly one [1..1] templateId (CONF: 2233-711264) such that it
711265	8.3.2	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.26" (CONF: 711265).
711243	8.3.2	If this continuous variable measure references an eMeasure, this code element <b>SHALL</b> equal the code element in that eMeasure's measure observation definition (CONF: 18256).	This code element <b>SHALL</b> equal the code element in that eMeasure's measure observation definition (CONF: 2233-711243).
711241	8.3.2	n/a	<b>SHALL</b> contain exactly one [1..1] statusCode (CONF: 2233-711241).
711242	8.3.2	n/a	This statusCode <b>SHALL</b> contain exactly one [1..1] @code="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF: 2233-711242).
711205	8.3.2	This externalObservation <b>SHALL</b> contain exactly one [1..1] id (CONF: 18245).  If this reference is to an eMeasure, this id <b>SHALL</b> equal the id in that eMeasure's measure observation definition (CONF: 18255).	This externalObservation <b>SHALL</b> contain exactly one [1..1] id (CONF: 2233-711205). Note: This is the id in the eMeasure's measure observation definition.

CONF. #	Section	Base Standard	Changed To
711253	8.3.3	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF: 2233-711253) such that it
711254	8.3.3	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.3.22"</b> (CONF: 2233-711254).
711201	8.3.3	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:18123).	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF: 2233-711201).
711266	8.3.4	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF: 2233-711266) such that it
711267	8.3.4	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.20.27.3.16"</b> (CONF: 2233-711267).
711198	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:17620).	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF: 2233-711198).
711180	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Reporting Stratum</b> (templateId:2.16.840.1.113883.10.20.27.3.4) (CONF:17920).	<b>SHALL</b> contain exactly one [1..1] <b>Reporting Stratum (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.20) (CONF: 2233-711180).
711190	8.3.4	<b>MAY</b> contain zero or more [0..*] <b>entryRelationship</b> (CONF:18136) such that it	<b>SHALL</b> contain at least one [1..*] <b>entryRelationship</b> (CONF: 2233-711190) such that it
711181	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Sex Supplemental Data Element</b> (templateId:2.16.840.1.113883.10.20.27.3.6) (CONF:18138).	<b>SHALL</b> contain exactly one [1..1] <b>Sex Supplemental Data Element (CMS EP) (V2)</b> (templateId:2.16.840.1.113883.10.20.27.3.21:2016-03-01) (CONF: 2233-711181).
711191	8.3.4	<b>MAY</b> contain zero or more [0..*] <b>entryRelationship</b> (CONF:18139) such that it	<b>SHALL</b> contain at least one [1..*] <b>entryRelationship</b> (CONF: 2233-711191) such that it
711182	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Ethnicity Supplemental Data Element</b> (templateId:2.16.840.1.113883.10.20.27.3.7) (CONF:18149).	<b>SHALL</b> contain exactly one [1..1] <b>Ethnicity Supplemental Data Element (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.22) (CONF: 2233-711182).

CONF. #	Section	Base Standard	Changed To
711192	8.3.4	<b>MAY</b> contain zero or more [0..*] <b>entryRelationship</b> (CONF:18140) such that it	<b>SHALL</b> contain at least one [1..*] <b>entryRelationship</b> (CONF: 2233-711192) such that it
711183	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Race Supplemental Data Element</b> (templateId:2.16.840.1.113883.10.20.27.3.8) (CONF:18150).	<b>SHALL</b> contain exactly one [1..1] <b>Race Supplemental Data Element (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.19) (CONF: 2233-711183).
711193	8.3.4	<b>MAY</b> contain zero or more [0..*] <b>entryRelationship</b> (CONF:18141) such that it	<b>SHALL</b> contain at least one [1..*] <b>entryRelationship</b> (CONF: 2233-711193) such that it
711184	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Payer Supplemental Data Element</b> (templateId:2.16.840.1.113883.10.20.27.3.9) (CONF:18151).	<b>SHALL</b> contain exactly one [1..1] <b>Payer Supplemental Data Element (CMS EP) (V2)</b> (templateId:2.16.840.1.113883.10.20.27.3.18:2016-03-01) (CONF: 2233-711184).
711212	8.3.4	<b>SHALL</b> contain exactly one [1..1] <b>Continuous Variable Measure Value</b> (templateId:2.16.840.1.113883.10.20.27.3.2) (CONF:18153).	<b>SHALL</b> contain exactly one [1..1] <b>Continuous Variable Measure Value (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.26) (CONF: 2233-711212).
711233	8.3.4	This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:18241). If this reference is to an eMeasure, this id <b>SHALL</b> equal the id defined in the corresponding eMeasure population criteria section (CONF:18258).	This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:2233-711233). Note: This is the id defined in the corresponding eMeasure population criteria section.
711268	8.3.5	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:2233-711268) such that it
711269 711297	8.3.5	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.2.0.27.3.17"</b> (CONF:2233-711269). <b>SHALL</b> contain exactly one [1..1] <b>@extension="2016-03-01"</b> (CONF:2233-711297).
711298	8.3.5	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.2.0.27.3.1"</b> (CONF:2233-17909). Note: Measure Reference and Results templateId (QRDA III) <b>SHALL</b> contain exactly one [1..1] <b>@extension="2016-02-01"</b> (CONF:2233-711298).

CONF. #	Section	Base Standard	Changed To
711213	8.3.5	<b>SHALL</b> contain exactly one [1..1] <b>Performance Rate for Proportion Measure</b> (templateId:2.16.840.1.113883.10.20.27.3.14) (CONF:17904).	<b>SHALL</b> contain exactly one [1..1] <b>Performance Rate for Proportion Measure (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.25) (CONF:2233-711213).
711296	8.3.5	<b>SHALL</b> contain exactly one [1..1] <b>Measure Data</b> (templateId:2.16.840.1.113883.10.20.27.3.5) (CONF:18426).	<b>SHALL</b> contain exactly one [1..1] <b>Measure Data (CMS EP) (V2)</b> (templateId:2.16.840.1.113883.10.20.27.3.16:2016-03-01) (CONF: 2233-711296).
711270	8.3.6	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:2233-711270) such that it
711271 711299	8.3.6	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.18" (CONF:2233-711271). <b>SHALL</b> contain exactly one [1..1] @extension="2016-03-01" (CONF:2233-711299).
711300			<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.9" (CONF:2233-18238). Note: Payer Supplemental Data Element templateId (QRDA III) <b>SHALL</b> contain exactly one [1..1] @extension="2016-02-01" (CONF:2233-711300).
711196 711230	8.3.6	n/a	<b>SHALL</b> contain exactly one [1..1] <b>value</b> with @xsi:type="CD" (CONF:2233-711196). This value <b>SHALL</b> contain exactly one [1..1] <b>translation</b> (CONF:2233-711230).
711231	8.3.6	n/a	This translation <b>SHALL</b> contain exactly one [1..1] @code, which <b>SHALL</b> be selected from ValueSet <b>CMS Payer Groupings</b> 2.16.840.1.113883.3.249.14.10.2 (CONF:2233-711231).
711229	8.3.6	n/a	This value <b>SHALL</b> contain exactly one [1..1] @nullFlavor="OTH" (CONF:2233-711229).
711199	8.3.6	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:18111).	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711199).

CONF. #	Section	Base Standard	Changed To
711255	8.3.7	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:2233-711255) such that it
711256	8.3.7	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.25" (CONF:2233-711256).
711203	8.3.7	<b>MAY</b> contain zero or one [0..1] <b>reference</b> (CONF:19651).	<b>SHALL</b> contain exactly one [1..1] <b>reference</b> (CONF:2233-711203).
711204	8.3.7	The externalObservationID contains the ID of the numerator in the referenced eMeasure.  This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:19655).	This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:2233-711204).
711294	8.3.7	n/a	The value, if present, <b>SHALL</b> be greater than or equal to 0 and less than or equal to 1 (CONF:2233-711294).
711295	8.3.7	n/a	The value, if present, <b>SHALL</b> contain no more than 6 digits to the right of the decimal (CONF:2233-711295)
711257	8.3.8	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:2233-711257) such that it
711258	8.3.8	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.19" (CONF:2233-711258).
711200	8.3.8	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:18117).	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711200).
711272	8.3.9	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:2233-711272) such that it
711273	8.3.9	n/a	<b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.27.3.23" (CONF:2233-711273).
711292	8.3.9	n/a	This low <b>SHALL</b> contain exactly one [1..1] @value="20170101" (CONF:2233-711292).
711293	8.3.9	n/a	This high <b>SHALL</b> contain exactly one [1..1] @value="20171231" (CONF:2233-711293).

CONF. #	Section	Base Standard	Changed To
711274	8.3.10	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:2233-711274) such that it
711275	8.3.10	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.2.0.27.3.20"</b> (CONF:2233-711275).
711232	8.3.10	If this Reporting Stratum references an eMeasure, and the value of externalObservation/id equals the reference stratification id defined in the eMeasure, then this value <b>SHALL</b> be the same as the contents of the observation/code element in the referenced eMeasure (e.g., 21112-8 'Birth date') (CONF:18259).	This value <b>SHALL</b> be the same as the contents of the observation/code element in the referenced eMeasure (e.g., 21112-8 'Birth date') (CONF:2233-711232).
711197	8.3.10	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:17584).	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711197).
711211	8.3.10	<b>SHALL</b> contain exactly one [1..1] <b>Continuous Variable Measure Value</b> (templateId:2.16.840.1.113883.10.20.27.3.2) (CONF:19513).	<b>SHALL</b> contain exactly one [1..1] <b>Continuous Variable Measure Value (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.26) (CONF:2233-711211).
711210	8.3.10	If this reference is to an eMeasure, this id equals the referenced stratification id defined in the eMeasure.  This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:18207).	This externalObservation <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:2233-711210). Note: This is the ID of the stratum in the referenced eMeasure.
711259	8.3.11	n/a	<b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:2233-711259) such that it
711260	8.3.11	n/a	<b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.10.2.0.27.3.21"</b> (CONF:2233-711260).

CONF. #	Section	Base Standard	Changed To
711291 711261	8.3.11	<b>SHALL</b> contain exactly one [1..1] <b>value</b> with @xsi:type="CD", where the code <b>SHALL</b> be selected from ValueSet <b>Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 DYNAMIC</b> (CONF:18236).	<b>SHALL</b> contain exactly one [1..1] <b>value</b> with @xsi:type="CD", where the code <b>SHALL</b> be selected from ValueSet <b>ONC Administrative Sex Value Set 2.16.840.1.113762.1.4.1 DYNAMIC</b> (CONF:2233-711291).  Certification validators will allow use of Value Set - ONC Administrative Sex 2.16.840.1.113762.1.4.1 or Value Set - Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 (CONF:2233-711261).
711202	8.3.11	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count</b> (templateId:2.16.840.1.113883.10.20.27.3.3) (CONF:18129).	<b>SHALL</b> contain exactly one [1..1] <b>Aggregate Count (CMS EP)</b> (templateId:2.16.840.1.113883.10.20.27.3.24) (CONF:2233-711202).

DRAFT

# 14 Change Log for 2017 CMS QRDA Implementation Guide from the 2016 CMS QRDA Implementation Guide

This appendix summarizes the changes made in this 2017 CMS QRDA Implementation Guide since the release of 2016 CMS QRDA Implementation Guide (July 8, 2015) and the 2016 CMS QRDA IG Appendix (February 26, 2016).

## 14.1 PART A

The table below lists the changes made for the Part A—QRDA-I DSTU R3.1 Supplementary Implementation Guide for Eligible Professional Programs and Hospital Quality Reporting of the 2017 CMS QRDA IG from the Part A—QRDA-I DSTU R3 Supplementary Implementation Guide for Eligible Professional Programs and Hospital Quality Reporting of the 2016 CMS QRDA IG (and the 2016 CMS QRDA IG Appendix).

**Table 47: Changes Made for 2017 CMS QRDA IG Part A from 2016 CMS QRDA IG Part A**

	2017 CMS QRDA IG	2016 CMS QRDA IG
Base Standard	HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture Category I, Release 1, Draft Standard for Trial Use (DSTU) Release 3.1, US Realm, 2016 (This is in the process of being publishing by HL7)	HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture Category I, Release 1, Draft Standard for Trial Use (DSTU) Release 3, US Realm, June 2015
4 QRDA Category I Requirements	Language is updated to reflect the requirement updates for the 2017 reporting year.	n/a
5.1.1 General Header	QRDA Category I Report – CMS EP & HQR (V3) (Note: this template is based on QRDA-I, DSTU R3.1)	QRDA Category I Report – CMS EP & HQR (V2) (Note: this template is based on QRDA-I, DSTU R3)
5.1.4 informationRecipient	This intendedRecipient <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:1140-16705_C01). <b>SHALL NOT</b> contain [0..0] @nullFlavor (CONF:CMS_0043). This id <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.3.249.7" (CONF:CMS_0025).	(5.1.5 informationRecipient) This intendedRecipient <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:CMS_0024) It <b>SHALL</b> contain exactly one [1..1] @root='2.16.840.1.113883.3.249.7' (CONF:CMS_0025)

	2017 CMS QRDA IG	2016 CMS QRDA IG
5.1.4 informationRecipient  QRDA-I CMS Program Name Value Set	Codes contained in the value set:  PQRS_MU_INDIVIDUAL PQRS_MU_GROUP HQR_EHR HQR_IQR HQR_EHR_IQR CDAC_HQR_EHR  (Note: Removed CEC)	Codes contained in the value set:  PQRS_MU_INDIVIDUAL PQRS_MU_GROUP CEC HQR_EHR HQR_IQR HQR_EHR_IQR CDAC_HQR_EHR
5.1.5 legalAuthenticator	<b>SHALL</b> contain exactly one [1..1] <b>legalAuthenticator</b> (CONF:2228-13817).  Note: If a Data Submission Vendor (DSV) is used, the DSV is the legalAuthenticator.  This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] <b>signatureCode</b> (CONF:1198-5583).  This signatureCode <b>SHALL</b> contain exactly one [1..1] @code="S" (CodeSystem: Participationsignature urn:oid:2.16.840.1.113883.5.89) (CONF:1198-5584).  This legalAuthenticator <b>SHALL</b> contain exactly one [1..1] <b>assignedEntity</b> (CONF:CMS_0100).  This assignedEntity <b>MAY</b> contain zero or one [0..1] <b>representedOrganization</b> (CONF:CMS_0101).	n/a (conform to the base QRDA-I R3 standard)
5.1.6 documentationOf/serviceEvent	[PQRS] This serviceEvent <b>SHALL</b> contain exactly one [1..1] <b>performer</b> (CONF:2228-16583_C01).	<b>PQRS Individual:</b> When the CMS Program Name is "PQRS_MU_INDIVIDUAL", there can be one and only one 'performer' element.  <b>PQRS GPRO:</b> When the CMS Program Name is "PQRS_MU_GROUP", multiple 'performer' elements are allowed but they must all have the same TIN.  This serviceEvent <b>SHALL</b> contain at least one [1..*] <b>performer</b> (CONF:1140-16583).

	2017 CMS QRDA IG	2016 CMS QRDA IG
5.1.6 documentationOf/serviceEvent	<p><b>[PQRS]</b> This assignedEntity <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:2228-16587_C01) such that it <b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.4.6"</b> National Provider ID (CONF:2228-16588).</p> <p><b>[PQRS]</b> This assignedEntity <b>MAY</b> contain zero or one [0..1] <b>assignedPerson</b> (CONF:CMS_0019).</p> <p><b>[PQRS]</b> The assignedPerson, if present, <b>MAY</b> contain zero or one [0..1] <b>name</b> (CONF:CMS_0020). Note: This is the provider's name.</p>	<p>This assignedEntity <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:1140-16587_C01) such that it <b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.4.6"</b> National Provider ID (CONF:1140-16588).</p> <p>This assignedEntity <b>MAY</b> contain zero or one [0..1] <b>assignedPerson</b> (CONF:CMS_0019). The assignedPerson, if present, <b>MAY</b> contain zero or one [0..1] <b>name</b> (CONF:CMS_0020). Note: This is the provider's name.</p>
5.1.6 documentationOf/serviceEvent	<p><b>[PQRS]</b> This representedOrganization <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:2228-16592_C01) such that it <b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.4.2"</b> Tax ID Number (CONF:2228-16593).</p> <p><b>[PQRS]</b> <b>SHALL</b> contain exactly one [1..1] <b>@extension</b> (CONF:CMS_0102).</p> <p><b>[PQRS]</b> This representedOrganization <b>MAY</b> contain zero or one [0..1] <b>name</b> (CONF:CMS_0022). Note: This is the organization's name, such as clinic's name.</p>	<p>This representedOrganization <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:1140-16592_C01) such that it <b>SHALL</b> contain exactly one [1..1] <b>@root="2.16.840.1.113883.4.2"</b> Tax ID Number (CONF:1182-43).</p> <p>This representedOrganization <b>MAY</b> contain zero or one [0..1] <b>name</b> (CONF:CMS_0022). Note: This is the organization's name, such as clinic's name.</p>

	2017 CMS QRDA IG	2016 CMS QRDA IG
5.2.2.1 Reporting Parameters Act – CMS EP	<p>(Note: Reporting Parameters Act – CMS EP is a new template that conforms to the Reporting Parameters Section template)</p> <p>Conforms to Reporting Parameters Act template (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8).</p> <p><b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:CMS_0044) such that it</p> <ul style="list-style-type: none"> <li><b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.17.3.8" (CONF:CMS_0045).</li> <li><b>SHALL</b> contain exactly one [1..1] @extension="2015-07-01" (CONF:CMS_0046).</li> </ul> <p><b>SHALL</b> contain exactly one [1..1] <b>effectiveTime</b> (CONF:23-3273). This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>low</b> (CONF:23-3274). This low <b>SHALL</b> contain exactly one [1..1] @value (CONF:CMS_0048). <b>SHALL</b> be precise to day (CONF:CMS_0027) This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>high</b> (CONF:23-3275). This high <b>SHALL</b> contain exactly one [1..1] @value (CONF:CMS_0050). <b>SHALL</b> be precise to day (CONF:CMS_0028)</p>	<p>(5.2.2 Reporting Parameters Section)</p> <p><b>SHALL</b> contain exactly one [1..1] <b>effectiveTime</b> (CONF:3273). This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>low</b> (CONF:3274). <b>SHALL</b> be precise to day (CONF:CMS_27)</p> <p>This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>high</b> (CONF:3275). <b>SHALL</b> be precise to day (CONF:CMS_28)</p>

	2017 CMS QRDA IG	2016 CMS QRDA IG
5.2.3 Patient Data Section QDM (V2) – CMS EP	<p>(Note: Patient Data Section QDM (V2) – CMS EP is a new template that conforms to the Patient Data Section QDM (V2) template)</p> <p>Conforms to Patient Data Section QDM (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2014-12-01).</p> <p><b>SHALL</b> contain exactly one [1..1] <b>templateId</b> (CONF:CMS_0036) such that it</p> <ul style="list-style-type: none"> <li><b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.2.1" (CONF:CMS_0037).</li> <li><b>SHALL</b> contain exactly one [1..1] @extension="2015-07-01" (CONF:CMS_0038).</li> </ul> <p><b>SHALL</b> contain at least one [1..*] <b>entry</b> (CONF:CMS_0051) such that it</p> <ul style="list-style-type: none"> <li><b>SHALL</b> contain exactly one [1..1] entry template that is other than the Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:CMS_0039).</li> <li><b>SHALL</b> contain at least one [1..*] <b>entry</b> (CONF:1140-14430_C01) such that it</li> <li><b>SHALL</b> contain at least one [1..*] Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:1140_14431).</li> </ul>	<p>(5.2.3 Patient Data Section)</p> <p><b>SHALL</b> contain at least one [1..*] <b>entry</b> (CONF:CMS_0029) Where the clinical statement codes <b>SHALL</b> contain the @sdtc:valueSet extension to reference the value set from which the supplied code was drawn (CONF:16573). Note: For PQRS program, validation for the generic constraint CONF:16573 is applied at an individual data element constraint level where applicable.</p>
5.2.3.1 “Note Done” with a Reason	New section.	n/a
5.2.3.2 Entry Template Requirements for PQRS	New section.	n/a
5.2.3.3 Use of Translation Codes for PQRS	New section.	n/a

## 14.2 PART B

The table below lists the changes made for the Part B—QRDA-III DSTU R1.1 Supplementary Implementation Guide for Eligible Professional Programs of the 2016 CMS QRDA IG from the Part B—QRDA-III DSTU R1 Supplementary Implementation Guide for Eligible Professional Programs of the 2016 CMS QRDA IG (and the 2016 CMS QRDA IG Appendix).

**Table 48: Changes Made for 2017 CMS QRDA IG Part B from 2016 CMS QRDA IG Part B**

	2017 CMS QRDA IG	2016 CMS QRDA IG
7 QRDA Category III Submission Rules	Language is updated to reflect the requirement updates for the 2017 reporting year.	n/a
8.1.4 informationRecipient	<p>This id <b>SHALL</b> contain exactly one [1..1] @extension, which <b>SHALL</b> be selected from ValueSet <b>QRDA-III CMS Program Name</b> 2.16.840.1.113883.3.249.14.1 01 <b>STATIC</b> (CONF: 2233-711162). If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CP_C_PLUS", then ClinicalDocument/participant/@typeCode="LOC" <b>SHALL</b> be present (CONF: 2233-711248). NOTE: The CPC+ CMS program name identifier code is yet to be determined.</p>	<p>This id <b>SHALL</b> contain exactly one [1..1] @extension, which <b>SHALL</b> be selected from ValueSet <b>QRDA-III CMS Program Name</b> 2.16.840.1.113883.3.249.14.1 01 <b>STATIC</b> (CONF: 711162). a. If ClinicalDocument/informationRecipient/intendedRecipient/id/@extension="CPC", then ClinicalDocument/participant/@typeCode="LOC" <b>SHALL</b> be present (CONF: 711248).</p>
8.1.7 participant is Location	<p>This associatedEntity <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:2233-711154). This id <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.3.249.5.1" CPC+ participant (CONF:2233-711155). Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.1) designates that the @extension must hold a CPC+ Participant ID. NOTE: The CPC+ Participant ID is yet to be determined.</p> <p>This id <b>SHALL</b> contain exactly one [1..1] @extension (CONF:2233-711156). Note: This is the CPC+ Participant ID assigned to the CPC+ participant. NOTE: The CPC+ Participant ID is yet to be determined.</p>	<p>This associatedEntity <b>SHALL</b> contain exactly one [1..1] <b>id</b> (CONF:711154). This id <b>SHALL</b> contain exactly one [1..1] @root="2.16.840.1.113883.3.249.5.1" CPC Practice Site (CONF:711155). Note: This OID contained in the @root (2.16.840.1.113883.3.249.5.1) designates that the @extension must hold a CPC Practice Site ID.</p> <p>This id <b>SHALL</b> contain exactly one [1..1] @extension (CONF:711156). Note: This is the CPC Practice Site ID assigned to the CPC Practice Site.</p>

	2017 CMS QRDA IG	2016 CMS QRDA IG
8.2.1 QRDA Category III Measure Section (CMS EP) (V2)	QRDA Category III Measure Section (CMS EP) (V2) [section: templateId 2.16.840.1.113883.10.20.27.2.3:2016-03-01 (open)]	QRDA Category III Measure Section (CMS EP) [section: templateId 2.16.840.1.113883.10.20.27.2.3 (open)]
8.2.2 QRDA Category III Reporting Parameters Section (CMS EP) (V2)	QRDA Category III Reporting Parameters Section (CMS EP) (V2) [section: templateId 2.16.840.1.113883.10.20.27.2.6:2016-03-01 (open)]	QRDA Category III Reporting Parameters Section (CMS EP) [section: templateId 2.16.840.1.113883.10.20.27.2.6 (open)]
8.2.2 QRDA Category III Reporting Parameters Section (CMS EP) (V2)	Updated template description. “The reporting parameter dates are equivalent to the measurement period dates for the data being aggregated. For Program Year 2017, the reporting parameter start date <b>SHALL</b> be “20170101” (i.e. 01/01/2017), and the reporting parameter end date <b>SHALL</b> be “20171231” (i.e., 12/31/2017).”	The reporting parameter dates are equivalent to the measurement period dates for the data being aggregated. For Program Year 2016, the reporting parameter start date <b>SHALL</b> be “20160101” (i.e. 01/01/2016), and the reporting parameter end date <b>SHALL</b> be “20161231” (i.e., 12/31/2016).
8.3.4 Measure Data (CMS EP) (V2)	Measure Data (CMS EP) (V2) [observation: templateId 2.16.840.1.113883.10.20.27.3.16:2016-03-01 (open)]	Measure Data (CMS EP) [observation: templateId 2.16.840.1.113883.10.20.27.3.16 (open)]
8.3.5 Measure Reference and Results (CMS EP) (V2)	Measure Reference and Results (CMS EP) (V2) [organizer: templateId 2.16.840.1.113883.10.20.27.3.17:2016-03-01 (open)]	Measure Reference and Results (CMS EP) [organizer: templateId 2.16.840.1.113883.10.20.27.3.17 (open)]
8.3.6 Payer Supplemental Data Element (CMS EP) (V2)	Payer Supplemental Data Element (CMS EP) (V2) [observation: templateId 2.16.840.1.113883.10.20.27.3.18:2016-03-01 (open)]	Payer Supplemental Data Element (CMS EP) [observation: templateId 2.16.840.1.113883.10.20.27.3.18 (open)]
8.3.9 Reporting Parameters Act (CMS EP) (V2)	Reporting Parameters Act (CMS EP) (V2) [act: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.23:2016-03-01 (open)]	Reporting Parameters Act (CMS EP) [act: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3.23 (open)]

	2017 CMS QRDA IG	2016 CMS QRDA IG
8.3.9 Reporting Parameters Act (CMS EP) (V2)	<p><b>SHALL</b> contain exactly one [1..1] <b>effectiveTime</b> (CONF:23-3273). This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>low</b> (CONF: 23-3274).</p> <p>This low <b>SHALL</b> contain exactly one [1..1] <b>@value</b>="20170101" (CONF: 2233-711292).</p> <p>Note: For Program Year 2017, the reporting parameter start date SHALL be "20170101".</p> <p>This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>high</b> (CONF:23-3275).</p> <p>This high <b>SHALL</b> contain exactly one [1..1] <b>@value</b>="20171231" (CONF:2233-711293).</p> <p>Note: For Program Year 2017, the reporting parameter end date SHALL be "20161231".</p>	<p><b>SHALL</b> contain exactly one [1..1] <b>effectiveTime</b> (CONF:3273). This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>low</b> (CONF:3274).</p> <p>This low <b>SHALL</b> contain exactly one [1..1] <b>@value</b>="20160101" (CONF:711292).</p> <p>Note: For Program Year 2016, the reporting parameter start date SHALL be "20160101".</p> <p>This effectiveTime <b>SHALL</b> contain exactly one [1..1] <b>high</b> (CONF:3275).</p> <p>This high <b>SHALL</b> contain exactly one [1..1] <b>@value</b>="20161231" (CONF:711293).</p> <p>Note: For Program Year 2016, the reporting parameter start date SHALL be "20161231".</p>
8.3.11 Sex Supplemental Data Element (CMS EP) (V2)	<p>Sex Supplemental Data Element (CMS EP) (V2)</p> <p>[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3 .21:2016-03-01 (open)]</p>	<p>Sex Supplemental Data Element (CMS EP) [observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.27.3 .21 (open)]</p>
8.3.11 Sex Supplemental Data Element (CMS EP) (V2)	<p><b>SHALL</b> contain exactly one [1..1] <b>value</b> with @xsi:type="CD", where the code <b>SHALL</b> be selected from ValueSet ONC Administrative Sex urn:oid:2.16.840.1.113762.1.4.1 <b>DYNAMIC</b> (CONF:2226-18236).</p>	<p><b>SHALL</b> contain exactly one [1..1] <b>value</b> with @xsi:type="CD", where the code <b>SHALL</b> be selected from ValueSet ONC Administrative Sex Value Set 2.16.840.1.113762.1.4.1 <b>DYNAMIC</b> (CONF:711291).</p> <p>Certification validators will allow use of Value Set - ONC Administrative Sex 2.16.840.1.113762.1.4.1 or Value Set - Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 (CONF:711261).</p>

# 15 Acronyms

This section describes acronyms used in this guide.

Acronym	Literal Translation
ASKU	Asked, but not known
CDA	Clinical Document Architecture
CMS	Centers for Medicare & Medicaid Services
CONF	conformance
CPC+	Comprehensive Primary Care Plus
CQM	Clinical Quality Measure
DSTU	Draft Standard for Trial Use
DSV	Data Submission Vendor
eCQI	electronic clinical quality improvement
eCQM	electronic Clinical Quality Measure
EHR	electronic health record
EP	Eligible Professional
FAP	Final Action Processing
GPRO	Group Practice Reporting Option
HIC	Health Insurance Claim
HL7	Health Level Seven
HL7 V3	Health Level 7 Version 3
HQMF	Health Quality Measures Format
ID	identifier
IHTSDO	International Health Terminology Standard Development Organization
IP	initial population
LOINC	Logical Observation Identifiers Names and Codes
MU	Meaningful Use
n/a	not applicable
NA	Not applicable
NLM	National Library of Medicine

Acronym	Literal Translation
NPI	National Provider Identification Number
OID	Oject Identifier
ONC	Office of the National Coordinator for Health Information Technology
PHDSC	Public Health Data Standards Consortium
PQRS	Physician Quality Reporting System
QDM	Quality Data Model
QRDA	Quality Reporting Data Architecture
QRDA-I	Quality Reporting Data Architecture Category I
QRDA-III	Quality Reporting Data Architecture Category III
SNOMED CT	Systematized Nomenclature of Medicine, Clinical Terms
TIN	Taxpayer Identification Number
UNK	Unknown
UTC	Coordinated Universal Time
UUID	Universally Unique Identifier
VSAC	Value Set Authority Center
XML	Extensible Markup Language

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# 16 Glossary

Term	Definition
Electronic health record (EHR)	Electronic records of patient health information gathered and/or generated in any care delivery setting. This information includes patient demographics, progress notes, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. This provides the ability to pass information from care point to care point providing the ability for quality health management by physicians.
eMeasure	A standardized performance measure in the Health Quality Measures Format (HQMF). CMS uses "eCQM" (electronic Clinical Quality Measure) for the eMeasures developed under the Meaningful Use program.
Physician Quality Reporting System (PQRS)	A quality reporting system that includes an incentive payment for eligible professionals who satisfactorily report data on quality measures for covered professional services provided during the specified program year.
XML Path Language (XPath)	This notation provides a mechanism that will be familiar to developers for identifying parts of an XML document. XPath syntax selects nodes from an XML document using a path containing the context of the node(s). The path is constructed from node names and attribute names (prefixed by an '@') and concatenated with a '/' symbol.

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# 17 References

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CMS, eCQM Library. [http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM\\_Library.html](http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/eCQM_Library.html)

eCQI Resource Center. <https://ecqi.healthit.gov/>

*HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category I, Release 1, Draft Standard for Trial Use Release 3.1 (QRDA-I R3.1). March 2016.*  
[http://www.hl7.org/implement/standards/product\\_brief.cfm?product\\_id=35](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=35)

*HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture, Category III, Release 1, Draft Standard for Trial Use, Release 1.1, 2016*  
[http://www.hl7.org/implement/standards/product\\_brief.cfm?product\\_id=286](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=286)

ONC, Electronic Clinical Quality Measure issue reporting system.  
<http://oncprojecttracking.org/secure/Dashboard.jspa>

U.S. National Library of Medicine, Value Set Authority Center. <https://vsac.nlm.nih.gov>

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